1946

A textbook in educational guidance for senior high school.

Mary Ford Detjen 1904-
University of Louisville

UNIVERSITY OF LOUISVILLE

A TEXTBOOK IN EDUCATIONAL GUIDANCE FOR SENIOR HIGH SCHOOL

A Thesis

Submitted to the Faculty

Of the Graduate School of the University of Louisville

In Partial Fulfillment of the

Requirements for the Degree

Of Master of Arts

Department of Education

By

Mary Ford Detjen

Year

1946

NAME OF STUDENT: Mary Ford Detjen

TITLE OF THESIS: A Textbook in Educational Guidance for Senior High School

APPROVED BY READING COMMITTEE COMPOSED OF THE FOLLOWING MEMBERS:

J. J. Oppenheimer

Guy Stevenson

NAME OF DIRECTOR: Hilda Threlkeld

DATE: May 25, 1946.

ACKNOWLEDGMENTS

Grateful appreciation is due Dean Hilda Threlkeld and Dean J. J. Oppenheimer for their interest and helpful suggestions in the writing of this thesis.

Acknowledgment is also made to the other members of the reading committee.

CONTENTS

CONTENTS

INTRODUCTION

INTRODUCTION

Before undertaking the writing of a textbook to aid youth in making their educational plans, there are certain definite things which should be done. The author should formulate a functional philosophy of educational guidance, set forth the scope and the aims of the task, and decide upon the principles of education and the psychologies of learning which are to govern the writing.

The Scope of Educational Guidance

Educational guidance is one of the most important phases of the entire guidance program. In its commonly accepted meaning, it is concerned with a student's adjustment to school life, his progress in present educational pursuits, and his plans for higher learning. It embraces everything which in any way affects the intellectual development of the individual. Directly or indirectly, formally or informally, consciously or unconsciously, all students from the day they enter school until they graduate are given some educational guidance. All young people need it; all real teachers administer it.

Although the emphases change with the years, educational guidance in one form or another permeates the entire school life of the individual. On the elementary school level, it is mainly concerned with mastery of the fundamentals, the forming of good study habits, the use of leisure

time, and physical and social development. Educational guidance in junior high school usually gives the student an over-all view of the various avenues of learning open to him, allows him to sample them by means of try-out courses, and helps him to lay the plans for the completion of his secondary school work. In the senior high school, educational guidance takes on the additional role of definite life planning with emphasis on the mental, emotional, and educational requirements for success in particular vocations. Educational guidance on the college level is a continuation of that given in senior high school. However, since the students are more mature and are nearing the realization of their plans, the guidance in college takes on a more realistic form.

It is difficult to define the limits of educational guidance. There is so much overlapping between vocational, educational, and social guidance that no sharp lines of demarcation can be drawn. It is impossible to assist a young person in his educational planning without considering the vocational aspects of his career. In administering guidance of a social, physical, recreational, or economic nature, it is important that these realms of the student's life be kept in proper balance with the educational.

The relative importance attached to the various phases of guidance presented in a particular school is

largely determined by the philosophy of the school administrators and by the needs of the community. A high school from which a large number of the graduates enter college will need to place more emphasis upon the educational aspects of guidance than will a school in an industrial neighborhood in which the majority of students withdraw at an early age to go to work.

Recently a study of 7,233 youths in forty-four cities of the State of New York was made for the purpose of discovering what happens to young persons in representative communities during the first five years after being graduated from or leaving public high school and also what these young people would have liked to receive from their schooling. Two of the conclusions of the study were:

> "While the youths reporting in this study had not been out of school long enough to make an ultimate appraisal of the guidance services received in school, there may be value in noting that the three services rated highest were, in descending order: help in selecting proper courses while in school, counsel on how to apply for a job and advice in planning for further education."
>
> "Of the total group, ... one of every five wished he had received more specific advice in planning further education."*

The Aims and Purposes of This Textbook

In discussing the aims of educational guidance,

---

*Youth: The First Year Out of School, The State Education Department, The University of the State of New York, Albany, October 1, 1942, p. 28.

Dr. McKown says:

> "In review, the school must accept its responsibility for showing the pupil the main demands, ends, values, and implications of education generally; acquainting him fully with the many opportunities of the school of which he is now a member; and finally, showing him the educational opportunities that lie beyond or outside his present school and inspire him to continue his education."*

The writer believes that all these phases of educational guidance should be included in the writing of a senior high school guidance textbook.

Some of the purposes of this book are to help students become oriented in school, to teach them how to concentrate and study effectively, to guide them in planning their study time, and to aid them in establishing good reading habits. It is also the aim of this textbook to inspire all pupils to reach their highest potential learning levels, to encourage those who are failing in their schoolwork, and to combat lack of interest.

The wise teacher is constantly on the alert for all cases of potential maladjustment, endeavoring to secure the facts which underlie each case, and to do what he can to provide individualized treatment. He realizes that good edu-

---

*McKown, Harry C., Home Room Guidance, McGraw-Hill Book Co., New York, 1934, p. 35.

cational adjustment is basic to good schoolwork and that one must understand the whole child before one can really teach him. One of the aims of this textbook is to help teachers in their efforts to remedy cases of social and emotional maladjustment, to help boys and girls avoid personality clashes with teachers and other students, and to encourage them to overcome unwholesome home environments and other factors which tend to undermine the learning situation.

In senior high school it is necessary to help each student to plan his program in terms of his own abilities, interests, and circumstances. Students must be counseled concerning the length of their formal education, the choice of extracurricular activities, and the requirements for graduation from high school, including the number of units, the special subjects required, the electives permitted, the major-minor requirements, and the grade averages to be maintained. The high school counselor usually endeavors to outline students' educational plans for at least two or three years in advance, taking into consideration the training requirements in the fields of work in which they are interested.

Young persons must be led to think seriously about the question of whether or not they are going to college. It has been estimated that slightly more than one in

every seven young people of college age are enrolled in a college or university. Some of these students will not benefit from their college experience and might be more useful to the world if they were doing work on the outside. On the other hand, some of the young men and women now working in offices or factories might, with college training, become outstanding leaders.

The Carnegie Foundation for the Advancement of Teaching made a ten-year study of the education of students in high schools and colleges of Pennsylvania. Tests were given in May, 1928, to some 27,000 seniors in high schools and private schools, and follow-ups were made for the next two years in an effort to discover whether the "cream of the crop" went to college. Some of the conclusions of the study were:

> "About one-fourth of the pupils who left school and went to work had academic ability higher than the typical college boy or girl. Or we might put the case the other way. About one-fourth of the college students showed less academic ability than the average student who left school and went to work. The scores of the students who went to the teachers' colleges were slightly below those of the students who went into the machine trades."
>
> "If the students who ought to go on to college are those of highest academic ability, then the figures show that the colleges are now getting only about half of the high school graduates they ought to get. The other half now go directly into jobs and their places in the college are taken by students with more money and less brains.

> In answer to the question, "If you do not intend to go to college, is it because (1) you lack funds? (2) family needs your support? (3) you are not interested?" a majority of those answering indicated that financial reasons were the barrier. The group who said financial handicaps would keep them from college did, as one might expect, somewhat better in their test than the ones who indicated a lack of interest in college."*

Students who desire to attend college should be given accurate information concerning the offerings and the desirable features of specific colleges, the entrance requirements, and the necessity for doing consistently good work in high school in order to be able to meet these requirements. They should also be given reliable instruction on how to make applications for college entrance, when such applications should be filed, what scholarship or work opportunities are available at the different colleges, and when applications for these are to be filed.

That larger and no less important group of students who do not intend to go to college should be informed about the opportunities for continuing their training by means of apprenticeship, trade schools, industrial training programs, correspondence courses, and extension classes.

---

*Watson, Goodwin, How Good Are Our Colleges? Public Affairs Pamphlet No. 26, Public Affairs Committee, New York, 1938, pp. 8-9.

Although the field of educational guidance is almost boundless in scope, there is a dearth of trained leadership and of precise information concerning guidance materials and methods. The results of a questionnaire sent out by the author to representative schools in every state showed that even though the majority of senior high schools have formal educational guidance classes, most of them do not use textbooks. Instead, materials are gathered from various sources. The lay teacher may be unaware of some of the current material or may be too busy to search for and assemble it. This textbook is proposed as an answer to this problem. It is intended to serve the dual purpose of meeting the individual educational guidance needs of high school students and of suggesting methods of procedure to be used by the teacher in presenting the material.

The Educational Principles Upon Which This Textbook is Based

Principle I. One of the basic principles of education is that a satisfactory learning situation is dominated by a real purpose and goal set up by the learner. It is understood that pupil purposes alone will not lead to all necessary learning. However, a worthy goal which is wholeheartedly accepted by the learner is an indispensable aspect of all learning situations.

The material of this textbook will be designed to capitalize upon the natural enthusiasm of high school students for analyzing their problems by suggesting a study of

school records, results of standardized tests, interests, ambitions, and mental characteristics in determining their own educational potentialities. The main theme of the book will be the importance of setting a goal for one's life and planning ways of realizing that goal.

Principle II. Another educational principle to which the author adheres is that learning depends on environmental demands. The child psychologist points out that there are few natural interests but that interests are products of environment and culture. One of the important functions of the teacher is to provide an environment rich in possibilities for stimulating new interests and for capitalizing on present ones.

Realizing that students acquire knowledge much more rapidly when they feel a direct need for it, the author aims to provide both needs and opportunities for learning. The reading matter of this textbook will emphasize the idea that all students need to plan their further education. The activities will suggest ways of finding the information and of taking the steps necessary to meet this need.

Principle III. Another guiding principle in the preparation of this textbook is the fact that although the learning process is directed chiefly toward accomplishing a specific thing, there are a great many related activities which can be used to supplement and enlarge upon the domi-

nant learning activity. From subsidiary activities it is possible for an individual to learn numerous facts, attitudes, mechanisms of social cooperation, abilities, and skills.

Concerning the interrelatedness of all aspects of human behavior, Dewey says:

> "Perhaps the greatest of all pedagogical fallacies is the notion that a person learns only the particular thing he is studying at the time. Collateral learning in the way of formation of enduring attitudes, of likes and dislikes, may be and often is much more important than the spelling lesson or lesson in geography or history that is learned. For these attitudes are fundamentally what count in the future. The most important thing that can be formed is the desire to go on learning."*

It is this "desire to go on learning", an appreciation of the value of education, and an understanding of the importance of life planning and building, as well as the actual educational guidance information, which the writer hopes to give through the pages of this textbook.

While developing the major theme of planning one's further education, the various chapters will also suggest techniques of studying effectively, criteria for evaluating one's capacity for further training, ways and means of financing one's education, and points to consider in judging

---

*Dewey, John, Experience and Education, The Macmillan Co., New York, 1938, p. 49.

the merits of prospective schools.

Principle IV. It is a generally accepted principle that high school procedures, to be effective, must be adapted to the varying levels and types of intelligence and aptitudes of the students. This textbook will take into account the needs of various groups of students. In each chapter enough materials and student activities will be presented so that the teacher may select the ones which seem most applicable and interesting to his special group. The textbook is especially intended for use in the tenth or the eleventh grade because it is at this particular level that interest in further education is at its height.

The Psychologies of Learning Upon Which This Textbook is Based

It is the aim of the writer to make use of those psychological principles which will best serve the needs of the learner and of the teacher. For this reason, she proposes to base the writing of this textbook upon the gestalt version of the field theory of learning.

According to this theory, impressions are definitely affected by the field in which experiences occur. The approach to the learning situation is made through the organized whole rather than through each of the isolated parts. No item is considered without reference to the total situation. Since the whole is primary, it is only by understanding the whole that the parts can have meaning.

One field psychologist has this to say to teachers:

> "In so far as the field theory . . . can be compressed into a single precept it could be phrased in the form of the following guide to wise teaching and learning, viz: Always consider the whole situation before responding. Specifically, this means such things as (1) not teaching anything about Afghanistan without simultaneously clarifying Afghanistan's position with respect to its Asiatic neighbors; (2) stressing the essentials of an act and not its 'trimmings'; and (3) placing every experience, old or new, into its larger setting."*

Field theory psychologists hold that learning is not achieved by adding fact to fact until a rational whole has been built up, and that skills are not acquired by drilling upon isolated parts which can later be put together into one completed accomplishment. Instead of proceeding from simple to complex, learning begins with a complex unit which becomes simpler as it is better understood. The infant first recognizes whole persons and objects. Later, he learns to distinguish between faces, features, and personalities. In like manner, persons learn through training to differentiate the various parts of what was at first recognized simply as a functioning whole.

---

*Hartmann, George W., "The Field Theory of Learning and Its Educational Consequences", The Forty-First Yearbook of the National Society for the Study of Education, Part II, Public School Publishing Co., Bloomington, Illinois, 1942, pp. 203-204.

Some of the subsidiary principles of the field theory include those of insight, initial delay, pacing, readiness, and re-trial.

Insight. The German word "gestalt" means any segregated whole. The gestalt version of field psychology is sometimes known as configuration or learning by insight. This simply means achieving a better understanding of the total pattern, the whole problem to be solved, or the total skill to be acquired. A student eventually arrives at an insight into the solution of a new problem by gradually bringing all his resources and his past experiences to bear upon the problem. As a consequence of the gestalt theory of learning by insight, there has come into being the modern "activity movement" emphasizing the fact that pupils must participate in real-life situations in order to learn.

Because of the author's acceptance of the principle of insight and of growth through self-activity, a great many problems and activities will be provided in this textbook. In an effort to achieve insight into the need for educational planning, the first chapters of this book will be devoted to an over-all view of the value of various high school subjects and the importance of reaching the highest educational level of which one is capable. From this concept of the worth of a broad general education, the succeeding chapters will be broken down into a study of colleges, trade

schools, vocational schools, correspondence courses, and other avenues for the continuation of formal education after high school graduation.

Initial delay. According to the field theory psychologists, there is often a period of initial delay during which the learner cannot see how to proceed. Such delay in the learning process does not indicate lack of intelligence or lack of attention, but simply a failure to have gained immediate insight into the problem. To bridge this period of initial delay the author proposes to provide explanatory reading matter and to suggest supplementary materials which will pave the way for insight into the problems and activities given at the close of each chapter.

Pacing. This textbook will also recognize the need for pacing, a term which is often used by the field psychologists and which denotes the adjustment of the learning situation to the maturity of the learner. It is the belief of the gestalt psychologists that if the level of difficulty of the material to be learned could be perfectly matched with the maturity level of the learner, learning would take place immediately.

In order to adjust the material of this textbook to the maturity of the students, the author enlisted the help of one entire group of senior high school students and of twelve individual students scattered over a number of localities.

Using the reading level and the apparent interest range of these young persons as criteria, the writer will endeavor to use vocabulary, subject matter, and activities which can be readily understood by the pupils on the grade level for which they are intended. An effort will be made to provide material which will be difficult enough to challenge the students but easy enough to be understood by them.

Readiness. The principle of readiness embraces the important problem of when to introduce certain learning experiences. It is an accepted fact that the maximum benefit is derived from a learning situation when the material to be learned is presented as nearly as possible at the time when the student is ready for it.

This textbook is to be written for use in the tenth or eleventh grade because it is at this level that students are usually ready for and interested in planning their higher education. At an earlier time they would probably see little value in it; at a later time it would be too late for some of them to meet certain college entrance requirements or to get vocational training in high school. Because pupils develop fatigue and lose interest much more quickly with activities and subject matter which are not interesting to them, it is best to give this particular type of guidance at the time when they are keenly aware of the need for it. The teacher who understands the student's interests and hobbies, his attitudes, his physical health, and

his mental hygiene can easily recognize his readiness for educational guidance. One of the chief purposes of this book is to help the teacher in this respect.

Re-trial. Some of the older theories of psychology held that new responses appeared as elements in a "trial-and-error" process. The field theory, on the other hand, maintains that responses are never repeated exactly and that it would be possible for blind trial and error to continue indefinitely without producing a correct response. It is the belief of the field psychologists that each effort of the learner is a "re-trial" and that incorrect responses are due to imperfect insight and not to a process of learning by trial-and-error.

William H. Burton says in his recent book:

> "True trial and error will undoubtedly occur when tasks are too far beyond the maturity and experience of the learner. The greater the adjustment between task and learner, the greater the reduction of waste in time and energy. Where tasks are well adjusted to maturity and experience but still challenging, insight with intelligent trials may substitute for trial and error."*

Through the use of numerous devices at the close of each chapter of this textbook, the writer will attempt to provide the learner with material for study and analysis,

---

*Burton, William H., The Guidance of Learning Activities, D. Appleton-Century Co., New York, 1944, p. 161.

guidance from outside aids, and ability to achieve insight through trying many new procedures.

The Administration of Educational Guidance in the High School

Some of the reasons for the writing of this textbook are the problems involved in administration. Although these problems vary from school to school, there is a prevailing pattern which will serve as a guide for the writing of this material.

In the majority of small schools the principal is chiefly responsible for interviewing and guiding the students. In the larger schools the homeroom adviser, the dean of girls, and the dean of boys are the most prevalent guidance officers. According to one authority,* the principal personally carries on guidance work for all the pupils in approximately two-thirds of the schools with enrollments of fewer than two hundred. The work of the principal as a guidance functionary in these schools is obviously very general in character, and probably belongs more properly in the field of administration than in guidance.

In large secondary schools the deans are responsible for most of the guidance. They generally teach part time, although in some schools they devote full time to personnel

---

*Reavis, William C., Programs of Guidance, Bulletin No. 17, U. S. Government Printing Office, Washington, D. C., 1933, pp. 7-8.

duties. Koos and Kefauver* give data to show that deans of secondary schools have been utilized in the capacity of administrative officers to a greater extent than in the capacity of counselors. The same writers state that in the schools studied by them approximately seven-eighths of those with enrollments in excess of one thousand employed the homeroom as the unit of the guidance program.

In a study of 1,600 high schools and 423 colleges and universities made for the purpose of finding out what is being done by high schools and liberal arts colleges to improve articulation between them, it was found that

> "In large schools having more than 1,200 students, someone else (than the principal) usually is responsible for guiding pupils toward, or away from, college--a special counselor in 24 percent of the cases, the homeroom teacher in 8 percent of them, and the dean in 4 percent. In about 60 percent of the large schools and in nearly as many of those having 200 to 1,200 students, no one person is chiefly responsible for this kind of pupil guidance."**

The guidance setup which is gaining increasing favor among the high schools of the present provides (1) a trained counselor to head the guidance program and to do the individual guidance, (2) group guidance administered through the home-

---

*Koos, Leonard V., and Kefauver, Grayson N., Guidance in Secondary Schools, The Macmillan Co., New York, 1932, p. 534.

**From High School to College, Research Bulletin of the National Education Association, Vol., XVI, No. 2, March, 1938, National Education Association, Washington, D. C., p. 71.

rooms, and (3) professional services for the solution of certain types of problems. This service should include experts in speech-correction and sight-saving, specialists in the area of health, psychiatric clinics to handle difficult emotional problems, and trained social workers for contact work in the homes.

Most high schools provide some individual counseling for their students. In order to advise adequately the educational guidance counselor should be thoroughly familiar with the curricular and extracurricular offerings of his own school and of the other schools in his vicinity, and with the admission requirements of the colleges to which his students go. He should be familiar with the directories, catalogs, bulletins, school handbooks and other material from which this information can be obtained. He should also be trained in the best guidance techniques and skilled in the use of intelligence, achievement, and aptitude test scores, interest inventories, school records, and other data which are indispensable for the solution of educational problems.

Because such a complete and extensive background of information and knowledge is necessary for competent educational guidance, very few school systems have enough technically trained workers to assume the responsibility of giving adequate guidance to all the students. Since much of the same information and advice must of necessity be repeated to many

students, there is a great saving in time when individual conferences are supplemented by group guidance. The groundwork for personal interviewing may be laid by the counselor either through taking over homeroom groups from time to time, or through group contacts with students in English, social science, or other classes.

Although the major responsibility for the actual advising on educational plans is assumed by the counselor, a great deal of the group work can be delegated to homeroom sponsors or class teachers. The teacher who is expected to assist should be provided with complete information, together with detailed suggestions for the presentation of the material.

It is the purpose of this textbook to provide subject matter and teaching plans to aid (1) the busy counselor in the teaching of educational group guidance classes and (2) the homeroom sponsor or class teacher who, though untrained in the techniques of guidance, must conduct such classes to supplement the work of the counselor. Enough material is provided for use in a one-semester course of two periods per week or in a two-semester course of one period per week. Suggestions for the use of the materials are given in the student activities at the close of each chapter. Most of these activities have been tried and have proved workable in high school classes. Notes to the teacher, reminders of any advance preparation which will be helpful in the presentation of the next chapter, and bibli-

ographies for both teacher and student are also provided at the close of each chapter.

In addition to serving as a teacher's guide, it is hoped that this textbook may meet the needs of students for factual reading matter and for a source of reference to literature in the field of educational guidance.

Summary

In summarizing the motives and the principles which prompt and pervade the writing of this textbook, the following seem worthy of repetition and emphasis:

I. Educational guidance in general is usually concerned with the following:

   A. In elementary school:

      1. Mastery of the fundamentals
      2. Forming of good study habits
      3. Wise use of leisure
      4. Adjustment to school life

   B. In secondary school:

      1. Progress commensurate with ability
      2. A study of vocational and educational opportunities
      3. Trial and selection of courses for high school study
      4. Planning for further education

II. The aims and purposes of this textbook are:

   A. To help students:

      1. To become oriented in high school
      2. To study effectively
      3. To plan their study time wisely
      4. To establish good reading habits
      5. To aspire to reach their highest potential learning levels

B. To help teachers:

1. To detect cases of potential maladjustment
2. To overcome factors which tend to undermine the learning situation
3. To provide individual counsel based on the abilities, interests, and circumstances of each student
4. To offer advice and guidance to those who plan to attend college.
5. To provide accurate information concerning opportunities for training by means of apprenticeship, trade schools, industrial training programs, and correspondence courses

III. The educational principles upon which this textbook is based:

A. A satisfactory learning situation is dominated by a real purpose and goal set up by the learner.

B. Learning depends on environmental demands.

C. Although the learning process consists chiefly in accomplishing a specific thing, there are a great many related activities which can be used to supplement and enlarge upon the dominant learning activity.

D. High school procedures, to be effective, must be adapted to the varying levels and types of intelligence and aptitudes of the students.

IV. The subsidiary principles of the field psychology of learning upon which this textbook is based:

A. Insight
B. Initial delay
C. Pacing
D. Readiness
E. Re-trial

V. A setup for the administration of guidance which prevails in many senior high schools at the present time:

A. A trained counselor:

1. To head the guidance program
2. To give individual guidance

B. Group guidance administered through:

1. Homerooms
2. Guidance classes
3. Occupations classes
4. Subject classes

C. Professional services:

1. Psychiatric clinics
2. Social workers for contact in homes
3. Director of guidance
4. Health guidance
5. Speech correction classes
6. Sight-saving classes

VI. This textbook purports to aid the program of guidance by:

A. Offering teaching plans for counselor, homeroom sponsor, and class teacher.

B. Giving sources of helpful pamphlets, bulletins, and teaching aids of various kinds.

C. Suggesting workable student activities.

D. Presenting factual reading matter for students.

E. Providing suitable bibliographies for teachers and students.

BIBLIOGRAPHY

Benson, Charles, E., Lough, James E., Skinner, Charles E., and West, Paul V., Psychology for Teachers, Ginn and Co., Boston, 1933.

Bode, Boyd Henry, How We Learn, D. C. Heath and Co., Boston, 1940.

Burton, William H., The Guidance of Learning Activities, D. Appleton-Century Co., New York, 1944.

Cox, Philip W. L., and Long, Forrest E., Principles of Secondary Education, D. C. Heath and Co., New York, 1932.

Dewey, John, Experience and Education, Macmillan Co., New York, 1938.

Douglas, O. V., and Holland, B. F., Fundamentals of Educational Psychology, Macmillan Co., New York, 1938.

Forty-First Yearbook of the National Society for the Study of Education, Part II, "The Psychology of Learning", Public School Publishing Co., Bloomington, Illinois, 1942.

Gates, Arthur I., Jersild, Arthur T., McConnell, T. R., and Challman, Robert C., Educational Psychology, Macmillan Co., New York, 1942.

Gwynn, J. Minor, Curriculum Principles and Social Trends, Macmillan Co., New York, 1943.

Hartmann, George W., Gestalt Psychology, Ronald Press Co., New York, 1935.

Koffka, K., Principles of Gestalt Psychology, Harcourt, Brace and Co., New York, 1935.

Koos, Leonard V., and Kefauver, Grayson N., Guidance in Secondary Schools, Macmillan Co., New York, 1932.

Lecky, Prescott, Self-Consistency, Island Press, New York, 1945.

McGeoch, John A., The Psychology of Human Learning, Longmans, Green and Co., New York, 1942.

McKown, Harry C., Home Room Guidance, McGraw-Hill Book Co., New York, 1934.

Saucier, W. A., Introduction to Modern Views of Education, Ginn and Co., Boston, 1937, Chap. 4.

CHAPTER I

HOW TO STUDY EFFECTIVELY

CHAPTER I

HOW TO STUDY EFFECTIVELY

Throughout the country educational programs have been accelerated. In many instances it is possible to complete a four year high school or college course in three years. Some schools now allow students to take an extra subject each semester provided their grades warrant it. Summer school work has been extended. Colleges have reorganized on the quarterly basis to provide for continuous training throughout the year. In other words, education has been speeded up. To keep pace with the times, boys and girls should adopt streamlined methods of study which will conserve their time and energy and add to their learning efficiency.

Getting organized for study

Many students go aimlessly through four years of high school wondering why they have difficulty with some subjects and even fail in others. They appear to have plenty of time for shows, dates, loafing, and general dallying around. To them school is just an extended vacation. In fact, many people are far more serious about organizing and planning a vacation than they are about planning a school career. When going on a vacation trip, their itinerary is usually worked out to the last detail. If this same organization were applied to a student's activities, there would be ample time

for study as well as recreation.

When you get a job, you will have to work on schedule. High school is a good place in which to practice for this. Your school work is your job now and should have priority over everything else. It is of such importance that you should take no time for outside work or social activities until after your studies are finished. As a basis for planning a workable schedule of your day, keep a record for a week of the amount of time you actually spend in sleeping, eating, dressing, going to and from school, working, playing, and participating in social activities. Observe how much time you spend on each subject each day. Then plan a definite program for yourself, not only allowing a certain amount of time for each activity, but actually indicating the hour at which you are to start studying each subject. Your schedule will have to be somewhat flexible, but it should be followed in so far as possible. Putting a time limit on each lesson may help you to hold your mind on your work and to push yourself to get it finished on time. After you have kept such a routine for a while, you will find that you have established a good habit of getting down to work without delay and that you actually have more time for other things than you previously had.

If you have a definite time and place for your work, you will be more responsive to studying and concen-

trating when you are there. Choose a quiet, private place, if possible. Your own room is preferable. The kitchen after the dinner dishes are washed is usually a good place to study. Those who have a large family and many distractions at home sometimes go to the community library to prepare their lessons. Some young people appear not to be disturbed by the radio and family conversation, but it takes much more energy and power of concentration to study in the presence of such disturbances.

If possible, regulate the temperature of your room so that it is not above seventy degrees. Have a comfortable chair and a study table with a good light over your left shoulder. See that your books, papers, pencils, ink, notes, dictionary, and all other necessary supplies are at hand before you start.

Forming good study habits

When you go to your room to study, start immediately. Do not wait for an inspiration, but tackle the job whether you are in the mood for it or not. Some students make the mistake of studying their favorite subject first and putting most of their time on it. It is a better plan to prepare the hardest lessons first while your mind is fresh. The subjects which you find least interesting are likely to become more fascinating in proportion to an increased amount of time spent on them.

Try to eliminate all the things which distract your attention. If your mind wanders while you are studying, bring it back by asking yourself questions on the lesson. You may find it helpful to read only one paragraph, one subdivision, or one page at a time, then to stop and try to recall all, or at least the main points, of what you have read. Continue to re-read the same material until you are sure of its contents. Sometimes mind wandering can be checked by reading aloud. It may be helpful, too, to try to put yourself in the teacher's place and to formulate good questions to be asked on the lesson or to imagine yourself as being called upon for a summary of the lesson.

A very bad study habit is likely to be formed if you pamper yourself by taking frequent rest periods, by stopping to get an occasional snack, or by making social telephone calls at intervals during the time set aside for your home work. Students are usually not nearly so exhausted as they imagine themselves. However, after long periods of study, it is sometimes restful to walk around the room, get a drink of water, or relax for five minutes without remaining away long enough to break your train of thought.

After a day's work, one is bound to be more tired than at the beginning of the day. Studying in the early morning hours under pressure of time is sometimes desirable.

A great deal can be accomplished by briefly reviewing each lesson before school when the body and mind are refreshed. Of course, it is understood that a minimum of eight hours of sleep each day is essential to successful study.

Before studying a new assignment, spend a few minutes reviewing the previous lesson. Then scan the new lesson hurriedly so that you may have a clear idea of the entire assignment before studying it in detail. It is usually a waste of time simply to read a lesson over several times without making an effort to clinch the facts in one's mind. Try to understand and remember what you read. Associate the facts you are studying with something else as a means of retaining them. Make the dictionary your close friend. Look up any words you do not understand. Never skip over difficult terms, graphs, charts, or tables. Try to get the main thought from each paragraph. If you are using your textbook, underline the important points in the lesson or jot down brief notes as you read. Then re-read your notes and any parts of the assignment which you do not understand or remember clearly. Close your book and recall as many statements concerning the lesson as you can possibly remember. If there are questions at the close of the chapter, try to answer them. It is often helpful to write and attempt to answer your own questions. A good way to learn a lesson is to tell someone about it. Bring into your everyday con-

versation with your family some of the facts you have learned at school.

When you are required to memorize, first work on the material as a whole, going over it rapidly to get the meaning. Repeat the entire unit carefully again and again until it is firmly fixed in your memory. Then concentrate on any difficult parts. It is usually better to spend several brief periods in memorizing a selection than to try to do it all at one sitting.

Prepare each lesson daily. Keep your notebooks and outside reading up-to-date. When a special report is assigned, begin gathering your material immediately. It is your responsibility to get from your teacher or classmates any work which you have missed and to make it up as soon as possible. The longer you wait, the harder it becomes. Learn to be independent--do not copy the work of other pupils. You will not be able to copy their examination papers, you know.

If a poor foundation in reading, grammar, arithmetic, spelling, or writing is causing you trouble, endeavor to do something about it. By setting aside a few minutes of your study time each evening for practicing these important skills, you should be able to overcome such a handicap. Perhaps your teacher or counselor can offer some suggestions for remedying your weaknesses. A great deal has been done in recent years to help students to increase their reading rate.

Many people have become more rapid silent readers by learning not to call words with the lips but simply to get the thought, to read several words or phrases at one glance, and to increase the speed of the eye movements.

The cause of poor work can often be traced to the taking of poor or incomplete assignments. Have a definite place in your notebook for recording your daily assignments. Be sure that your notes are accurate and that you understand what is required. When in doubt, ask for further instruction from your teacher rather than wait until after class to inquire of other students. Usually if you concentrate on what the teacher is saying, you will not have to ask for a second explanation. It is not fair to allow your mind to wander and then to take the time of the class for your personal instruction. When preparing your lessons, check off each assignment as it is finished.

Taking accurate notes

Good methods of taking notes should be learned early in high school. The learning process is speeded up when there is pupil activity. Taking notes while the teacher talks or while you are studying allows you to take an active part in the lesson. In addition to this, the notes, if well taken, can be a storehouse of information for review before examinations.

Carrying several notebooks or taking notes on any

odd pieces of paper which you happen to have is an inefficient and wasteful method. Record your notes in a regular 8½" x 11" notebook, keeping different subjects separated and using tabs to mark their locations. If possible, use ink. Penciled notes blur and become illegible after a short time. Write clearly and use standard abbreviations. Make your notes brief, using short sentences, phrases, and clauses. Do not try to copy the book nor to take down all that the teacher says. Record only the main ideas in such a way that you can recall the thoughts later. Long and poorly organized notes are hard to study.

In outlining notebook material, indicate the headings or main topics at the left margin with Roman numerals (I, II, III, etc.). The subdivisions should be indented and labeled with capital letters (A, B, C, etc.), and minor subdivisions with Arabic numerals (1, 2, 3, etc.). Still smaller details may be marked with small letters (a, b, c, etc.). Indent points of equal importance the same amount. Read the whole lesson before beginning your outline. You will then have a clear picture of the principal ideas which should be placed as main headings and of the subtitles which should be arranged beneath the main headings to explain and support them.

Preparing for examinations

Everyone is more or less afraid of an examination.

Even though a student is confident that he knows the material, the uncertainty often makes him nervous. This fear can be lessened by learning the subject matter more thoroughly and completely as one goes along. Reviews at regular intervals far surpass the customary cram session. Cramming for the six-weeks tests may cause failure in the semester finals. Of course, a concentrated review just before the examination is helpful, but a last minute effort to learn all the material for the first time is useless. If good notes have been taken on class lectures, textbooks, and outside reading, you should have a condensed and well organized outline which is indispensable for review. Any ideas that are too sketchy and vague can be looked up in the text. If, by chance, you have come to examination time without good notes on the work covered, start outlining your text immediately. This will help to organize the work in your mind. Dates, formulas, names, places and quotations that appear important can be briefly recorded and learned. Do not spend too much time on those things which you already know fairly well. Instead, concentrate on the items on which you are weak.

Study the questions at the end of the chapters. Review the questions which were asked in class and the quizzes which were given. Often the examination questions are taken from these sources. After sitting in class with an instructor for a period of time, one should know fairly well what he

stresses and the type of questions he is most likely to ask. Try to figure out what he thinks important and emphasize those things in your review. Usually the teacher will tell you the kind of test that will be given and the material that will be covered.

When taking an examination, read the entire list of questions before starting to work on it. Answer first those which you know well. In the meantime, you may get some ideas on the more difficult questions. Think your answers through before you write them. It is sometimes well to outline an answer in your mind in order that it may be better organized. Do not spend too much time on any one question. Write legibly and formulate good sentences. Make your replies clear and brief. Wordy answers to questions which you do not know never deceive the teacher. Pay no attention to what those about you are writing or to the length of time it takes them to finish. Before handing in your paper, check it for errors.

Speaking with ease before an audience

Oral reports and talks of various kinds also cause some students a great deal of concern. One of the most difficult things for most people to do is to speak before an audience. Perhaps the reason for this is fear of facing a sea of expectant faces and becoming the center of attraction. It often helps to remember that you have made a study of the

subject on which you are speaking and that you probably know much more about it than any of your listeners. Most professional speakers experience a sense of uneasiness and nervousness just before they take the platform. To speak with ease before an audience takes a lifetime of study and practice. One may never get over that self-conscious feeling but, with practice, one can appear at ease. This is all important. If a speaker displays poise and self-control when he starts to speak, the audience soon settles down to listening to what he has to say. If he is ill at ease, the listeners find themselves watching for physical signs of nervousness instead of thinking of the content of his speech. Perfect composure when you first rise to your feet will make the entire occasion much easier for you. Most people find it better to use an outline than to try to give a memorized talk. Have your subject matter well in mind. Practice your speech as nearly as possible under the same conditions as those under which you will deliver it. Stand in front of a mirror and say it aloud to yourself. If possible, even go to the room in which the talk is to be made and speak it aloud there.

If you would get the most from your schooling, cooperate with your teachers. Find out how they like work done, and endeavor to do it that way. It is to your advantage as a student to adjust yourself to your teachers' demands and to enlist their help whenever it is needed. Instructors are al-

ways willing and anxious to give additional aid to those who really want it. After years of observation, one teacher came to the conclusion that students wanted as little education as they could get for their time and effort. In other dealings, the average person seeks a bargain, but very rarely does a student go back to a teacher for additional coaching or for an extra assignment.

STUDENT ACTIVITIES:

I. Discuss and compare with other members of the class the conditions under which you usually study, the average amount of time you spend on homework, whether or not you have a regular time and place for study, the physical conditions which you find most conducive to study, and any successful means you have for coping with such distractions as radio, family conversation, playful children, and other noises.

II. Discuss any successful methods which you may have discovered and can pass on to other members of the class for:

1. Making a complete and usable notebook
2. Taking notes on assignments
3. Eliminating telephone calls, visitors, etc. during study hours.
4. Memorizing
5. Giving special reports
6. Teaching as a means of learning
7. Studying in the morning vs. studying at night.
8. Preparing for examinations

III. Discuss the advisability of taking notes and the best methods to employ in note taking.

IV. From a chapter in any textbook, work out an outline, emphasizing the main points, and using the following system of indentation:

I
II
A
B
1
2
a
b

V. List all the rules for efficient studying which you find in this chapter and any others which you can add.

VI. Make a time schedule which you think you will actually be able to use. Allow sufficient time for study, work, and recreation, setting aside definite periods for each. Make an effort to follow this program.

VII. Observe the good and the bad study habits of different students in the study hall, noticing the general habits, the time it takes for getting started, the time actually spent in studying, the time spent in dawdling, the apparent concentration, the amount of daydreaming, the attention paid to distracting influences, and the length of time spent on each lesson. You will probably find that the students who make the best marks in your classes also have the best study habits.

NOTES TO THE TEACHER:

I. Because students spend most of their study time in reading, any help which they can be given toward reading more effectively will be a great service. It is suggested that some good pointers on learning to read more rapidly and with greater comprehension may be found in the pamphlet, How to Read Rapidly and Well, by C. Gilbert Wrenn and Luella Cole, Stanford University Press, Stanford University, California, 1935.

II. As a means of discovering the study weaknesses of a class or of helping individuals to become aware of their particular study habits, you may wish to use the Study-Habits Inventory, by C. Gilbert Wrenn, Stanford University Press, Stanford University, California, 1941. (Price, twenty-five tests, $1.25.) This inventory is intended for use with high school seniors and college students but it may be used with any high school group.

ADVANCE PREPARATION FOR THE NEXT CHAPTER:

If the Student Activities suggested at the close of Chapter II are to be used, it will be helpful to have on hand the slips mentioned in Activity I and the book called for in Activity VIII, p. 64.

One or more of the books suggested in the first Note to the Teacher, pp. 64-65, should be in the classroom for reference.

Prognosis and aptitude tests for use in connection with this chapter are suggested in Note II. These or similar tests can be used to advantage in guiding students in a further choice of high school subjects.

BIBLIOGRAPHY

Bennett, Margaret E. and Hand, Harold C., School and Life, McGraw-Hill Book Company, New York, 1938, Chaps. 6-11.

Bliss, Walton B., Personality and School, Allyn and Bacon, Boston, 1938, Part II.

Cole, Luella, and Ferguson, Jessie Mary, Students' Guide to Efficient Study, Farrar and Rinehart, Inc., New York, 1935.

Crawford, Claude C., Cooley, Ethel G., and Trillingham, C. C., Living Your Life, D. C. Heath and Company, Boston, 1940, Chap. 2.

Crawley, S. L., Studying Efficiently, Prentice-Hall, Inc., New York, 1936.

Eastburn, Lacey A., Kelley, Victor H., Falk, John C., Planning Your Life for School and Society, Charles Scribner's Sons, New York, 1942, Chap. 8.

Howard, Lowry S., The Road Ahead, World Book Company, Yonkers-on-the-Hudson, New York, 1941, Chaps. 4, 5.

McCaul, Margaret E., Guidance for College Students, International Textbook Company, Scranton, Pennsylvania, 1939, Chaps. 5, 6.

McKown, Harry C., How to Pass a Written Examination, McGraw-Hill Book Company, New York, 1943.

Pitkin, Walter B., How We Learn, McGraw-Hill Book Company, New York, 1939, Part I.

Pitkin, Walter B., Newton, Harold C., and Langham, Olive P., Learning How to Learn, McGraw-Hill Book Company, New York, 1935.

Smith, Henry Louis, Your Biggest Job, School or Business, D. Appleton and Company, New York, 1930, Chap. 5.

Whipple, Guy M., How to Study Effectively, Public School Publishing Company, Bloomington, Illinois, 1937.

Wrenn, C. Gilbert, Study Hints for High School Students, Stanford University Press, Stanford University, California, 1932.

Wrenn, C. Gilbert, and Larsen, Robert P., Studying Effectively, Stanford University Press, Stanford University, California, 1941.

CHAPTER II

THE PURPOSE OF VARIOUS HIGH SCHOOL SUBJECTS

CHAPTER II

THE PURPOSE OF VARIOUS HIGH SCHOOL SUBJECTS

What's the use?

Very often high school students find themselves wondering why they have to be subjected to the torture of studying certain subjects which they think can be of no earthly use to them. "What's the use of studying science when I'm going to be a stenographer?" or, "I'm going to be a mechanic. What good will history do me?" they ask.

All schools have specific subject requirements for graduation. Authorities in the field who have studied the educational needs of the masses have found that of all the possible things which might be taught to people of high school age, there are certain subjects which will be of the greatest value to the greatest number. Because all persons need a working knowledge of English, a certain degree of proficiency in mathematics, an acquaintance with the simple basic principles of science, and an understanding of the social relations of people, courses along these lines have been prescribed for high schools.

Aside from those subjects which are "musts" for graduation, most high schools allow their students to elect other subjects which especially appeal to them. It is in the selection of these elective subjects that young people often use poor judgment. Many boys and girls have no better

reason for taking a subject than that they have been told that it is easy, or that their friends are going to take it. Subjects are frequently elected simply because pupils want to be under particular teachers or to avoid other teachers. A course may be taken on the basis of a suggestion from a relative, a friend, or an acquaintance who studied it ten years ago and found it easy or interesting. Sometimes subjects are actually chosen because the elite of the class are taking them and it seems to be the socially correct thing to do.

To boys and girls, the future seems far less important than the immediate present. Too often they choose their high school subjects to satisfy a whim of the moment without looking three or four years ahead. But those who make unwise choices will find it hard to compete with their more farsighted classmates. It has been estimated that 90 percent of high school students take college preparatory courses, but only about 20 percent of those who graduate eventually enter college. The college preparatory students who do not go to colleges have less to offer an employer than do those of equal ability who have studied more practical subjects.

Different students have different abilities, aptitudes, and interests. Certainly no standardized course could meet the needs of all of them. Programs of study

should be planned to suit individuals. If you are looking forward to a career in a certain field, you should choose the subjects which will give you the best preparation for entrance into that field. It is not a good policy to be constantly changing from one course of study to another. However, if you feel that you have made a poor choice, it is much better to make a change than to continue in a course which was chosen without sufficient thought or purpose.

No matter what you may learn, you will probably some day find a use for it. A lawyer once said that he won a case because of some facts he had learned in a school shop course which he had taken somewhat by chance. Many of the things that are learned in high school have a direct and immediate value. Knowledge which adds to your conversational ability and to your understanding of the things which you read and see about you every day can be appreciated and enjoyed at once. It is quite obvious that the skills acquired in the sewing, cooking, shop and typewriting classes are useful and valuable. Their relation to everyday living and to vocational life can readily be seen. But some students resent having to take subjects whose value is not so clear to them. Naturally, it is much easier to put oneself wholeheartedly into the study of a lesson if one can see the need for it.

Various subjects are valuable chiefly because they

eliminate superstitions and ignorant practices, or because they prepare people to meet the public more successfully, to run a home more efficiently, or to live more healthfully. Frequently the study of a particular subject must precede the study of other more advanced courses in high school or college. Such a subject is said to have a prerequisite value. For example, algebra is a prerequisite to the study of trigonometry. Bookkeeping is a prerequisite to the study of accounting.

Why must English be studied so long?

Because it takes a long time to become proficient in the use of our language, boys and girls are required to study it every year in most schools. It is universally agreed that English is the one subject which is needed by everyone. Practically all persons profit both socially and in a business way by being able to express themselves well and to grasp the written and spoken thoughts of others. The ability to use one's native language with ease and fluency is a decided asset in any line of work. The engineer who has a command of English and can explain his plans in a forceful manner is far ahead of his competitor who has difficulty in expressing his ideas clearly. But aside from the fact that a working knowledge of our language is helpful to everyone, it is an absolute necessity that a person show a special skill in English if he would enter any of the following occupations:

Advertising copy writer	Librarian
Critic	Literary research worker
Demonstrator	Receptionist
Editor	Reporter
Foreign correspondent	Salesperson
Hostess	Secretary
Interpreter	Teacher
Journalist	Translator

If you get stage fright when you face an audience, probably you are very much in need of a course in public speaking. Ability in public speaking and dramatics is essential to persons in the following occupations:

Actor	Lecturer
Clergyman	Motion picture director
Dramatic coach	Politician
Lawyer	Radio announcer

Journalism and creative writing courses are helpful to those who hope to do literary work either for pleasure or for profit. Among those who have a greater need than others for a knowledge of grammar, spelling, and punctuation are the:

Author	Proofreader
Copy writer	Reporter
Dictation machine operator	Rewrite man
Editor	Stenographer
	Typesetter
	Typist

Why is everyone required to take mathematics?

Mathematics is another subject which is so fundamental that it is required of all high school students. Practically all persons make some use of mathematics in their everyday lives. Mathematical calculations must be used in budgeting incomes, making bank deposits, investing money, and determining the amount of material necessary to make a dress, a cabinet, or a dog house.

Different branches of mathematics are used in solving the many kinds of problems which arise every day. Arithmetic is the oldest of these. Farmers, business men, housewives all use it. Business arithmetic is the most practical mathematics course for the boy or girl who does not expect to go to college but who plans to enter the business world after graduation. This subject includes the study of percentage, banking, insurance, taxation, investments, interest, discount, and the calculations used in common business forms.

Algebra is another branch of mathematics which deals with the finding of unknown quantities. In addition to the figures used in arithmetic, letters of the alphabet are used in algebraic calculations. Algebra is a prerequisite to the study of physics and trigonometry in high school and to the study of the more advanced mathematics and science courses in college.

Geometry is still another branch of mathematics which deals with the measurement of lines, angles, surfaces and solids. A knowledge of geometry and geometric figures is used in engineering, architecture, carpentry, drafting, surveying, and in many kinds of designing. This subject is a prerequisite to the study of surveying and trigonometry. A year of algebra and a year of geometry are entrance requirements to many colleges. Additional credits are usually re-

quired for entrance to scientific and engineering courses.

Trigonometry is the branch of mathematics which deals with the relations of the sides and the angles of triangles. Navigators, airplane pilots, and workers in some of the skilled trades must have some knowledge of trigonometry. This subject is a prerequisite to the study of surveying college calculus, and engineering courses.

Surveying is the art of finding and establishing elevations and lines for bridges, buildings, sewers and roads. It involves the locating and measuring of tracts of land and the dividing of land into subdivisions.

Pharmacists, real estate agents, contractors, carpenters, paper hangers, interior decorators, and designers do not use mathematics exclusively, but they must make a great many calculations in the course of their work. Ability in mathematics is an asset in many occupations, but it is essential if one would become a:

Accountant
Actuary
Analyst
Appraiser
Architect
Astronomer
Auditor
Banker
Bookkeeper
Broker
Calculating machine operator
Cashier
Chemist
Draftsman
Engineer
Estimator
Financial adviser
Insurance underwriter
Machinist
Mathematical research worker
Mathematics teacher
Navigator
Pay roll clerk
Physicist
Purchasing agent
Scientific research worker
Statistician
Surveyor
Timekeeper

Is it necessary to study social science?

Certain of the social science subjects, which include history, geography, civics, and economics, are required of all high school students regardless of the course they may be taking. It is necessary that all citizens know something about their government in order that they may more intelligently help to solve such everyday problems as those of unemployment, labor, housing, and self-government. Many persons fail to take advantage of the numerous services and benefits which the government offers simply because they are uninformed. Through a study and an understanding of the various phases of social science, young people can have a more intelligent viewpoint concerning world events; they can gain a great deal more from the experience of travel; and they can have a keener insight into the local, state and national civic problems which touch their lives on every side. They can more fully enjoy and appreciate plays, motion pictures, lectures, and newspaper and magazine articles.

Ancient, medieval, and modern world history, and the history of our own country must be thought of as something more than accounts of battles and wars and lists of dates to be learned. History is a story of the life and adventures of mankind, and as such it should be of interest to all. In order more fully to understand the problems and the circumstances of the present, one must know something of the past on

which the present is built. Certainly all Americans should be concerned about the happenings in the rest of the world and about the events which preceded them. Credits in history are required for entrance to some colleges.

An accurate knowledge of geography should be a part of one's general education because almost everything in the world is dependent upon location, climate or the physical condition of the earth. World events are constantly bringing to our attention many far away places and making it imperative that we become familiar with these places. Economic geography or commercial geography deals with the sources of income, the industries, the distribution and the development of the natural resources of communities in various geographic locations. Physical geography or physiography has to do with the natural features and changes of the earth.

Civics is a study of the organization and the principles of government and of the rights and duties of citizens.

Economics is the scientific study of how men make a living. It deals with supply and demand, money and credit, trade and transportation, business cycles, labor problems, the rise and fall of prices, and the cost of living. Consumer education teaches buyers how to spend money more wisely, how to get more value out of commodities, how to test and analyze various products, and how to recognize inferior merchandise.

Students who are outstanding in any branch of the

social sciences and who would like to investigate the possibilities of a vocation in this field might consider the following:

Anthropologist
Archaeologist
Banker
Businessman
Buyer
Cartoonist
City manager
Civics teacher
Civil service administrator
Commercial attache
Consul
Councilman
Curator in a historical museum
Diplomat
Economic statistician
Economics teacher
Economist
Exporter
Foreign correspondent
Genealogist
Geographer
Guide
Historian
History teacher
Importer
Intelligence officer
Investment adviser
Labor leader
Lawyer
Map maker
Marketing expert
Newspaper correspondent
Paleontologist
Production manager
Public finance expert
Research assistant to historical writers
Research worker for government bureaus
Sales manager
Social studies teacher
Social worker
Soil survey worker
Supervisor of travel bureau
Trade commissioner
Worker in various government departments

Of what value is the study of science?

Because it is so important that everyone should have a usable fund of knowledge concerning such things as air, water, weather, bacteria, heat, light, electricity, and nutrition, a certain amount of work in the field of science is required for graduation from most high schools and for entrance to many colleges.

Biology, which is a combination of botany and zoology, is taught in most senior high schools. Botany deals with plant

life; and zoology, with animal life.

Physiology is a study of the human body including the muscles, the nervous system, the circulation of the blood and the functions of the various organs.

Physics is a branch of science which deals with the material world and its phenomena. It includes the study of mechanics, heat, electricity, light, sound, and motion.

Chemistry is a study of the approximately eighty elements (calcium, hydrogen, oxygen, phosphorus, sodium, etc.) of which all substances are composed. It includes the breaking down of various substances into elements, the building up of new substances from these elements and the chemical changes involved in these processes. Those who plan to study medicine or engineering should have a good background of high school physics and chemistry. As in the case of algebra, geometry and advanced mathematics, so physics and chemistry are always considered as prerequisite to further technical education.

Agriculture is a study of the cultivation of the soil and of the underlying principles and practices which aid in the production of larger and better crops. It also includes the science of raising livestock.

There are many occupations open to those who are especially interested in the field of science. Among them are:

Agricultural chemist
Agricultural engineer
Agricultural research worker
Anatomist
Apiarist
Archaeologist
Astronomer
Bacteriologist
Biologist
Botanical artist
Botanist
Breeder
Chemical engineer
Civil engineer
Collector of zoological specimens
Conservationist
County agricultural agent
Curator in botanical museum
Curator in geological museum
Curator in natural history museum
Dairyman
Dairy farmer
Dentist
Dermatologist
Dietitian
Electrical engineer
Electrician
Embryologist
Entomologist
Florist
Food inspector
Forest ranger
Forester
Forestry research worker
Game warden
Gardener
Geological draftsman
Geological engineer
Geological surveyor
Hatcher
Horticulturist
Ichthyologist
Industrial chemist
Irrigation engineer
Laboratory technician
Landscape architect
Landscape gardener
Manager of zoological gardens
Mechanical engineer
Medical research worker
Metallurgical engineer
Metallurgist
Meteorologist
Military engineer
Mineralogist
Mining engineer
Naturalist
Nature guide
Nurse
Nurseryman
Occupational therapist
Oculist
Optometrist
Ornithologist
Osteopath
Paleontologist
Pathologist
Pediatrician
Pharmacist
Physician
Physicist
Physiologist
Physiotherapist
Plant breeder
Poultry farmer
Radio engineer
Radio operator
Radio technician
Research chemist
Sanitation expert
Scientific farmer
Scientific writer
Seed tester
Soil expert
Stock farmer
Surgeon
Taxidermist
Teacher of scientific subjects
Toxicologist
Tree surgeon
Veterinarian
X-ray technician
Zoologist

Who should study foreign language?

Foreign language is not generally required for graduation from high school, although it is still required for entrance to some colleges. Most students who are willing to put forth the effort can learn a foreign language, but sometimes it is at the sacrifice of other subjects that might be more profitable to them. Unless a young person is reasonably sure that he will attend college or will have some definite use for the language, he might use his time to better advantage in taking some more practical subject. It has been observed that those who do poorly in their English work usually have difficulty with a foreign language.

A knowledge of foreign language is helpful in the study of medicine, law, engineering, pharmacy, music, and other fields in which numerous terms and many important books must be read in other languages than English. If several languages are offered in your high school, you should carefully consider before choosing a particular one. Those who plan to study medicine are sometimes advised to take two years of high school Latin because of the great number of scientific terms of Latin derivation which they will encounter. In fact, almost all the technical words used by professional persons have their origin in the Latin or Greek languages. French or German, preferably German, are the modern languages recommended for those who expect to study medicine, chemistry, and chemical engineering. A

great number of scientific and technical treatises are never translated into English, and some books for physicians, chemists and other scientists can be read only in German. Those who plan to study architecture or engineering are advised to take French or German. Many important books on art, drama, architecture, and science can be read only in French. Spanish is the language most frequently studied by commercial students because this language is used in our relations with Latin America. However, the commercial students' need for Spanish is sometimes overemphasized.

One who possesses unusual skill in learning foreign languages may use his ability in one of the following vocations:

Cable operator	Foreign language teacher
Commercial attache	Foreign missionary
Consul	Foreign news correspondent
Consular service worker	Immigration inspector
Customs operator	Intelligence officer
Diplomat	Interpreter
Diplomatic service worker	Translator

Of what value are the fine arts?

Many boys and girls enjoy the high school band, orchestra, glee club and art classes without any thought of some day using their skills professionally. The fine arts are usually studied for their creative, cultural and recreational values and for the pleasure and satisfaction which they bring to the person who masters them. However, those who have special talent for music may consider entering the following vocations:

Accompanist
Arranger of musical comedy
Composer
Concert artist
Instrumentalist
Music critic
Music demonstrator
Music teacher
Musical librarian
Musical psychologist
Musical therapist
Opera singer
Orchestra leader
Proprietor or salesman in music store
Radio performer
Representative for music publisher
Researcher in history of music
Singer in church, theater, or restaurant
Vocal or instrumental conducto
Vocalist

There is a growing demand for those who have ability in art. Some of the occupations open to them are:

Architect
Art shop buyer
Art shop proprietor
Art shop salesman
Art teacher
Artist
Ceramic artist
China painter
Commercial artist
Commercial designer
Display man
Illustrator -
Interior decorator
Landscape architect
Leather tooler
Lithographic artist
Photographer
Portrait painter
Pottery decorator
Salesman or buyer for art department or home furnishings department
Sculptor
Sign painter
Stylist
Window trimmer
Wood carver

What are some of the most practical high school subjects?

Those boys and girls who know that they cannot or will not go to college should take advantage of the high school subjects which will help them to earn a living after leaving school. The commercial and the practical arts courses are the ones most commonly offered for students who do not take the so-called college preparatory course.

The subjects usually included in the commercial course are bookkeeping, accounting, stenography, typewriting, office training, commercial law and salesmanship.

Bookkeeping is the recording of business transactions in a systematic way so that the owner of the business may have available such information as the amount he owes, the amount owed him, the profit or loss for a given time, the expense of operation, and the information for income tax reports. By studying bookkeeping, the student gains a knowledge of the way in which business is conducted, the use of various business papers and forms, and the importance of neatness, accuracy and good penmanship. Even though training in bookkeeping is not necessary to the stenographer, such knowledge often makes him more valuable to his employer. The study of bookkeeping is prerequisite to the study of accounting.

Accounting is advanced bookkeeping. In addition to being able to record transactions, the accountant must know how to analyze the records kept by the bookkeeper and to plan the system which a bookkeeper uses.

Stenography, or shorthand, is a method of rapid writing by the use of abbreviated lines and curves written according to sound. Stenography is often an opening wedge into the business world for boys as well as for girls. In fact, it offers a good opportunity for entrance into almost every kind of business.

Typewriting is valuable, not only in commercial work, but in everyday life. Many people use the typewriter at home for all business correspondence and other types of writing.

College students find the ability to type a great asset in their work. Typewriting is a prerequisite to the study of stenography, because it is necessary to type in order to transcribe shorthand notes rapidly into longhand.

Office Training is a course in which students are taught the many details connected with office routine. It usually includes a study of business correspondence, commercial papers and forms, filing, communication and transportation information, and the use of duplicating, addressing, dictating, calculating and bookkeeping machines.

Commercial law gives the student an understanding of some of the laws which will affect his business and social life, and teaches him how to avoid situations which might involve undesirable legal problems.

Salesmanship gives vocational training in the various aspects of selling. It also stresses ethics, psychology of selling, and the development of valuable personal traits.

A person who takes a special interest in the commercial subjects may wish to prepare for one of the following occupations:

Accountant
Actuary
Advertising agent
Advertising manager
Auditor
Banker
Bookkeeper
Broker
Inspector
Insurance agent
Junior office clerk
Merchandise manager
Merchant
Office machine operator
Paymaster
Personal shopper

Business engineer
Buyer
Cashier
Certified public accountant
Collector
Comparison shopper
Court reporter
Demonstrator
Employment manager
Filing clerk
Floor manager
Personnel worker
Promoter
Public stenographer
Receiving clerk
Salesclerk
Salesman
Secretary
Shipping clerk
Statistician
Stenographer
Stock clerk
Typing telegrapher
Typist

Many girls do not take advantage of the home economics classes because they say that they "can learn to sew and cook at home." This may be true, but there are a great many scientific facts and new techniques taught in the foods and clothing courses which the average girl never learns at home. Aside from the practical everyday value of these subjects, there are many vocations for both boys and girls who are especially interested in the field of home economics. Among them are:

Baker
Caterer
Chef
Cleaner and dyer
Cook
Demonstrator for manufacturers
Designer
Diet expert
Dietitian
Dressmaker
Food administrator
Food expert
Home demonstrations agent
Hotel manager
Interior decorator
Laundry worker
Maid
Milliner
Research worker
Seamstress
Tailor
Teacher of home economics
Tearoom manager

Other specialists in this field are experts who prepare budgets and menus for average families on different incomes, do research work and prepare bulletins for the government;

home economists who test foods and receipes, write sales booklets and give radio talks for food industries; and commercial food managers or business managers in charge of restaurants, cafeterias, hospital kitchens, recreation clubs, resorts, camps, school lunchrooms, college dining halls, prisons, asylums, and other institutions.

This is an age in which technical training is of paramount importance. In most schools there are numerous practical arts courses for boys who have creative ability and who like to work with their hands. The knowledge gained in school shops is invaluable in daily life. Boys who have acquired some skill in the use of tools are more self-sufficient in making repairs of all kinds and they are certainly more helpful in their own homes.

Those who have a particular interest and ability in any of the various phases of industrial arts have an almost unlimited field of occupations from which to choose. Of course, before selecting a shop course with a view to preparing for a vocation, a young man should consider the trends in the various fields of industry, the demand for workers in the different trades, and the local conditions which affect employment so that he will not get into a field that is already overcrowded. An interest in metal work, woodwork, auto mechanics, heat treatment, mechanical drawing, printing, pattern making, machine shop, foundry, or electricity might cause a young person

to enter one of the following occupations:

Air-conditioning engineer	Ironworker
Airplane mechanic	Linotype operator
Architect	Machinist
Automobile mechanic	Mechanical engineer
Building contractor	Metallurgist
Building inspector	Molder
Cabinetmaker	Pattern maker
Carpenter	Pressman
Civil engineer	Radio operator
Designer	Radio service man
Draftsman	Sheet metal worker
Electrical engineer	Shipbuilder
Electrician	Steamfitter
Engraver	Steel worker
Estimator	Tool maker
Furniture designer	Typesetter
Foundry worker	Upholsterer

Physical education is usually thought of only in connection with sports, recreation, and body building, but it also has a vocational value. A serious interest in athletics may lead one to enter one of the following vocations:

Athletic trainer	Professional baseball player
Ballet dancer	Professional basketball player
Boxer	Professional football player
Camp counselor	Sports announcer
Dancer	Sports writer
Golf professional	Wrestler
Jockey	

Have your subjects been chosen according to a plan?

Give some earnest thought to the purpose of the courses which you are taking. If you have made snap judgments in planning your high school career, and if you feel that you are taking subjects which will not be of the greatest benefit to you, perhaps it is not too late to make some changes in your program for the next semester. Talk it over with your

parents, principal, adviser, dean, or home room teacher. Be sure that every subject in your schedule fits into a well-made plan. If you expect to go to college, you cannot begin too soon to find out the requirements for entrance to the particular school of your choice. Do not make the mistake of waiting until your senior year to make plans for college. If you are likely to go to work after graduation from high school, be sure to take the courses which will best prepare you for a job.

It is usually safe for the person who has made no definite plans for the future to take more credits in the subjects which he likes best and in which he makes expecially good records. If you have always done exceptionally well in mathematics, continue to take as many high school mathematics courses as possible and eventually you may discover a vocational use for your training.

It is more difficult to predict success or failure in a subject which you have never studied. Aptitude tests are often used to help students decide what courses they should elect in high school. There are tests designed to measure aptitudes for learning art, music, foreign language, higher mathematics, shorthand, bookkeeping, shop work, typewriting, and many other subjects. In some subjects there are tests which have not been tried out sufficiently to be altogether dependable. Although aptitude test scores are by no means in-

fallible, it has been found that a high percentage of those who make good scores pass the courses, and a large percentage of those who make poor scores on the tests fail the courses. Consult your home room teacher, guidance counselor, or principal about the possibility of taking some of these tests.

It must be remembered that a test score is only one of the factors to be considered in deciding whether or not to take a subject. Some persons may succeed or fail for other reasons than aptitude or lack of aptitude. A strong desire to learn or an unusual amount of effort may make up somewhat for a lack of ability. Illness, absence from school, or failure to study may cause a person to fail even though he has a great deal of natural ability.

STUDENT ACTIVITIES:

I. Have prepared in advance slips of paper each containing the name of a different vocation. Each pupil may draw a slip and name the high school courses and also the major and minor subjects which would be most helpful to one who planned to enter this vocation.

II. What school subjects have you especially liked? Name several vocations which require ability in these subjects.

III. Name some values, other than vocational, which may be derived from the study of mathematics, science, social studies, and foreign languages.

IV. What are the requirements for graduation from your high school? Discuss the reasons for the requirements in each of the subject fields.

V. Write on unsigned slips of paper your real reason for choosing the electives you are now taking. Hand these slips to the teacher to be used as a basis for a class discussion.

VI. Cite cases of persons who have failed to take the required subjects for college entrance and tell of the complications which have arisen as a result.

VII. Cite cases of persons whom you know who have failed to get the jobs they wanted because they had not taken certain subjects in high school.

VIII. Study the lists of occupations in this chapter and learn the nature of any which are unfamiliar to you. If your library has a copy of the Dictionary of Occupational Titles, this book will be quite useful in finding definitions of vocations.

NOTES TO THE TEACHER:

I. The following references can be used to show the students the bearing which the subjects studied in school have upon a large number of possible vocations:

School Courses and Related Careers, Teacher's Manual on the Vocational Survey Blank, by Otto R. Bacher and George J. Berkowitz, Science Re-

search Associates, Chicago, 1941, pp. 38-89.

The Champaign Guidance Charts, published by the Faculty of the Champaign Senior High School, Champaign, Illinois, 1939.

What to Do in the World's Work, Bulletin of Vocational Information for Hunter College Students, Hunter College, 695 Park Avenue, New York City, 1941.

II. In order to guide students in a choice of high school subjects, it may be helpful to give some prognosis tests at this time. The following are a few good aptitude tests for the academic subjects about which students are most often undecided:

Lee Test of Algebraic Ability, by J. Murray Lee, Public School Publishing Co., 509-513 North East Street, Bloomington, Illinois, 1930, specimen set, 20¢.

Lee Test of Geometric Aptitude, by Dorris M. Lee and J. Murray Lee, California Test Bureau, 3636 Beverly Boulevard, Los Angeles, 1930, specimen set, 15¢.

Luria-Orleans Modern Language Prognosis Test, by M. Luria and J. S. Orleans, World Book Company, 1930, specimen set, 15¢. For students comtemplating the study of French, Spanish, or Italian.

Orleans Algebra Prognosis Test, by J. B. Orleans and J. S. Orleans, World Book Company, Yonkers, New York, 1929, specimen set, 15¢.

Orleans Geometry Prognosis Test, by J. B. Orleans and J. S. Orleans, World Book Company, Yonkers, New York, specimen set, 15¢.

Orleans-Solomon Latin Prognosis Test, by J. S. Orleans and Michael Solomon, World Book Company, Y onkers, New York, 1926, specimen set, 15¢.

ADVANCE PREPARATION FOR THE NEXT CHAPTER:

The committee suggested in Activity VI, p. 81, should be appointed in advance.

If the questionnaire in Note III, pp. 81-82, is to be used, it should be mimeographed before the next meeting of the class.

BIBLIOGRAPHY

Bacher, Otto R., and Berkowitz, George J., School Courses and Related Careers, Teacher's Manual on the Vocational Survey Blank, Science Research Associates, Chicago, 1941, pp. 38-89.

Brewer, John M., and Landy, Edward, Occupations Today, Ginn and Company, Boston, 1943, pp. 61-72.

Chapman, Paul, Occupational Guidance, Turner E. Smith and Company, Atlanta, 1937, pp. 538-539.

Eastburn, Lacey A., Kelley, Victor H., and Falk, Charles J., Planning Your Life for School and Society, Charles Scribner's Sons, New York, 1942, pp. 88-96, 128-140.

Shively, J. D., and Shively, C. C., Personal Analysis and Vocational Problems, The McCormick-Mathers Publishing Company, Wichita, Kansas, 1938, pp. 57-64.

Smith, Charles M., and Baron, Samuel, Choosing Your Course, Henry Holt and Company, New York, 1942.

CHAPTER III

DOES EDUCATION PAY?

CHAPTER III

DOES EDUCATION PAY?

Why young people stop school

There are many forces which are constantly drawing young people away from their studies and into jobs. The desire of high school students to dress well, to own cars, and to have more money for dates causes many of them to stop school and thus to jeopardize all chances of success in the future. The lure of apparent high wages and of immediate financial independence is most appealing to them. Jobs available to high school students may seem to be very attractive and to furnish a direct solution to all of their problems. In reality, such jobs are quite mediocre and are usually on a low occupational level. They are very likely to place the workers permanently on a plane of living above which it is almost impossible to advance.

Leaving school because of straitened financial circumstances in the family is sometimes unavoidable. Those who stop school of necessity can, of course, continue their education by means of home study, night classes, part-time school, or correspondence courses. Many boys and girls have every intention of getting additional training in this way, but the great majority of them lack the determination to carry out their intentions. They find it too great a strain to work during the day and then to attend school at night. However,

those who are forced through no fault of their own to leave school early should not be discouraged. Hard work, enthusiasm, and ambition will find a way.

Some persons quit school because of inability to do the academic work. If a pupil has reached the limit of his capacity and is getting nothing out of school, further efforts to continue his formal education may be useless. He may as well enroll in a trade class or become an apprentice and acquire a skill. It is far better to be identified as a welder, a metal worker, a plasterer, or a bricklayer than it is to drift from one job to another doing common labor. Too often young people try to obtain white-collar jobs when they are better suited for other occupations. The world needs the services of many types of workers. Those who work with their hands are necessary, just as are the professional people. The honor lies in doing one's work, whatever it may be, in a creditable manner.

Frequently students stop school simply because they do not like to study; they are not interested in particular subjects; they think they are misunderstood by their teachers; or they do not like the principal. The rules and regulations of the school seem unfair to them. In other words, they are bored with it all. Instead of attempting to analyze the situation, they take the easy way out and try to justify their action by shifting the blame to the school. If such students would talk the matter over with their teachers or principal, they might be

able to get to the bottom of the trouble and to work out a solution. Sometimes a change from one course to another, an additional study period, or the dropping of a subject gives one a new slant on life. Usually, however, the disinterested student is not putting enough time on his studies. The more one concentrates upon a subject, the more interested he becomes.

Disadvantages of stopping school too soon

Uneducated persons often become bored with life unless something exciting is happening all the time. The thought of spending several hours with a good book has little appeal for them. People with little education are often superstitious and mistrustful. Their conversational ability is limited. Because of lack of knowledge and understanding, they fail to appreciate and enjoy many of the things around them. They are not looked up to as leaders in the community. Very few uneducated persons ever become famous or occupy positions of importance. In most instances, they even lack the wisdom necessary for giving advice, guidance, and encouragement to their families.

Young persons who have not completed their schooling are at a definite disadvantage when seeking employment. A high school graduate does not have more ability or a greater earning capacity simply because of his diploma, but he is a more desirable employee because of the general qualities which led him to

finish high school in the first place. The manager of a chain of hamburger stands stated that he preferred to hire high school graduates, not because a high school education was essential to the making of good hamburgers, but because he had learned that those young men who had had the perseverance to stay in school until they had completed their courses also had more of the qualifications which would cause them to stick to a job and do it well.

High school drop-outs usually take the first jobs they can get. These jobs require no skill, a great deal of manual labor, much supervision, and very little responsibility. To persons who are capable of self-expression and creative thinking, such work may become extremely monotonous. The demand for workers is very limited because there are always so many people seeking employment on this level.

Workers on the lower income levels are more subject to accident. A serious injury to a laborer may prevent him from ever working again. An equivalent injury to a surgeon may keep him from performing operations, but not necessarily from practicing medicine. An educated person can transfer from one type of work to another much more readily than can an uneducated one.

Unskilled laborers have a much shorter working life than tradesmen and business and professional people. Their work is so hard that they do not have the necessary physical

strength for it in old age. This is one of the reasons why more than fifty percent of all untrained workers are dependent upon others for support at the age of sixty. Education is the best old age insurance one can have. It does not guarantee fame or fortune, but statistics show that over a period of a lifetime educated persons are more prosperous than uneducated ones.

The following table, which was taken from Dr. Everett W. Lord's The Relation of Education and Income* shows the median earnings of graduates on three educational levels. Notice that the earnings of workers with less than a high school education show no increase after the age of forty-five; the earnings of those with high school training show no increase after the age of fifty; but there is a continual increase in income throughout life for those on the college level. Notice also the difference between the earnings of the elementary school graduate and the college graduate at the age of sixty-five.

	YEARLY INCOME		
Age	Elementary School	High School	College
25	$1120	$1430	$1750
30	1550	1800	2400
35	1625	2000	3200
40	1634	2450	4000
45	1700	2600	5200
50	1700	2800	5000
55	1528	2800	5500
60	1500	2460	5300
65	1365	1975	6200

(From a study of the incomes of more than 7,000 men, age 19 to 72 years, in all occupations, and living in all parts of the United States)

*Lord, Everett W., The Relation of Education and Income, Alpha Kappa Psi Fraternity, Indianapolis, Indiana, 1928.

When students stop school before it is necessary, they voluntarily deprive themselves of many of the advantages of life. They find college doors and, consequently, entrance to the professions closed to them. There are definite educational requirements for entrance into almost all vocations of any consequence, and it is impossible to enter some of the more desirable occupations if one's education is too limited. The table on the following page shows how the amount of schooling one has affects the level of the vocation one may enter.

When asked why they were attending college, an entire group of fraternity men expressed the opinion that by so doing they would be able to have more of the material things of life, although none of them expected to become wealthy. Many were obtaining a college education as the first step necessary to entering the fields of their choice. One young man admitted that he wanted to make a name for himself. Several others were training for vocations in which they felt that they might better serve humanity. Some wanted to be able to meet and associate with people on an educated plane. A few expressed a desire for education so that they might guide and advise their children and bring them up in a cultural atmosphere.

Young people seldom realize that when they exchange their books for lunch pails too early, they forfeit their chances for advancement and for economic security. Too often they are misled by the prospects of the immediate present, with-

OCCUPATIONS ON VARIOUS EDUCATIONAL LEVELS

Elementary School	Business or Trade School	Senior High School	Junior College	College or University	Graduate School
Junior clerk	*Office machine operator	Bookkeeper	Broker	Teacher	Physician
Messenger	Typist	Stenographer	Buyer	Minister	Surgeon
Office boy	Carpenter	*Office machine operator	Commercial designer	Dentist	Medical Psychologist
Streetcar conductor	Machinist	Cashier	Inspector	Engineer	Psychiatrist
Waiter	Electrician	Salesman	Metal assayer	*Accountant	College professor
Butcher	Plumber	Clerk	Estimator	Architect	Astronomer
Factory worker	Printer	Bank teller	Forest ranger	Chemist	Geologist
Laborer	Dressmaker	Advertisement writer	Secretary	Statistician	*Lawyer
Truck driver	Cabinet maker	Insurance agent	*Draftsman	Editor	Bacteriologist
Elevator operator	Barber	Contractor	Factory manager	Forester	Oculist
Bellboy	*Beauty operator	*Draftsman	Statistical clerk	*Lawyer	School administrator
Wrapper	Baker	Aviator	Chemical laboratory worker	Social worker	
Nursemaid	Bricklayer	Mail carrier	Surveyor	*Dietitian	
Housemaid	Sheet metal worker	Policeman	Dental hygienist	Archaeologist	
Cement finisher	Steam fitter	Receptionist	Laboratory technician	Veterinarian	
Chauffeur	Watchmaker	Demonstrator	*Dietitian	Pharmacist	
Glazier	Welder	Cartographer	*Nurse	Metallurgist	
Paperhanger	Bookbinder	Floorwalker	Interior decorator	*Nurse	
Iron worker	Airplane mechanic		Recreation leader	Meteorologist	
Plasterer	Auto mechanic		*Accountant	Actuary	
Practical nurse	Engraver		Expert machinist	Auditor	
Riveter	Optical mechanic		Fashion designer	Botanist	
Roofer			Optometrist	Journalist	
Seamstress				Librarian	
Stevedore				Zoologist	
Taxi driver					
Usher					
Painter					
Foundryman					

*The educational requirements for some of these occupations vary according to state laws, local conditions, or the degree of proficiency desired.

out stopping to take an over-all view of the possibilities of a lifetime. A study of economics shows that business cycles occur periodically. Times of prosperity and times of depression follow each other. During periods of prosperity, a worker with incomplete schooling may fare quite well. But during periods of depression, there is a slackening of industrial production and a scaling down of jobs. At such times, the workers with more training and education are kept on the payroll, while those with less training and education find themselves walking the streets in search of other employment. When these job seekers do find work, it is likely to be on a lower level with less pay.

Dr. Harold F. Clark, in his Life Earnings in Selected Occupations in the United States,* says that during the height of prosperity in 1929, unskilled workers averaged $1080 per year, while during the depth of the depression in 1932, they averaged only $325 per year. Of course, all incomes declined during this time, but those in other fields of work did not get below the subsistence level. Earnings in the skilled trades dropped from an average of $1700 in 1929 to an average of $685 in 1932.

In order to make a fair comparison of incomes in various vocations, one must consider them in terms of lifetime

---

*Clark, Harold F., Life Earnings in Selected Occupations in the United States, Harper and Brothers, New York, 1937, p. 7.

earnings. In the table below, Column 2 shows the amount of money which would have to be invested at 4 per cent interest over a period of a lifetime in order to earn an equivalent of the total amount which the worker can earn during his life. In other words, Column 2 gives the present value of the average earnings for a working lifetime. A lawyer, for example, would have to pay a bank $105,000 to be assured of an annual income equal to that which he would earn working as a lawyer.

This table, taken from Dr. Clark's book, covers a complete business cycle from 1920 to 1936, including a period of prosperity and a period of depression.

INCOME IN SELECTED OCCUPATIONS IN THE UNITED STATES, 1920-1936*

Column 1	Column 2	Column 3
Occupation	Present value of average earnings for a working lifetime	Average earnings per year
Medicine	$108,000	$4,850
Law	105,000	4,730
Dentistry	95,400	4,170
Engineering	95,300	4,410
Architecture	82,500	3,820
College teaching	69,300	3,050
Social work	51,000	1,650
Journalism	41,500	2,120
Ministry	41,000	1,980
Library work	35,000	2,020
Public school teaching	29,700	1,350
Skilled trades	28,600	1,430
Nursing	23,300	1,310
Unskilled labor	15,200	795
Farming	12,500	580
Farm labor	10,400	485

*Clark, Harold F., Life Earnings in Selected Occupations in the United States, Harper and Brothers, New York, 1937, p. 5.

Education does pay!

Education enables one to appreciate and enjoy the finer things of life. It generally lifts one to a higher plane of living; gives one more interesting and stimulating associates; raises one in the respect and recognition of the community; and increases one's chances for success in his chosen field of work.

Education usually pays, too, in terms of money. To be sure, it is not the education in itself, but the way in which it is used, that produces the returns. Educated persons generally receive higher salaries because there is a scarcity of educated workmen. It sometimes happens, however, that educated persons make less than uneducated ones merely because they have failed to consider the question of supply and demand in making their vocational choices. Education is always worth money to its possessor if he is wise enough to use it where the demand is greatest.

Students often cite cases in which success has been achieved by persons with very little schooling. These cases are the exception rather than the rule. Such persons have made up for their lack of training by an unusual amount of ambition, determination, and hard work, and sufficient insight to use their abilities where the demand was great. They are the kind of individuals who, had they had the opportunity to go to school, would in all probability have been even greater successes. They are the self-made men of a generation ago. To-

day, with schooling available to everyone, the chances of advancing very far without formal education is slight.

Remain in school as long as you can. Additional training always pays dividends!

STUDENT ACTIVITIES:

I. Discuss the cultural, social, and economic advantages of education. Name some other advantages.

II. Enumerate some of the most common reasons which young people give for stopping school before high school graduation, and decide in each case whether or not the reason is justifiable.

III. Mention some of the results of stopping school to go to work.

IV. In his study of the relation of education and income, Dr. Everett F. Lord, of Boston University, found that the average life earnings of the untrained man from fourteen to sixty years of age amounted to about $64,000. The life earnings of the high school graduate from eighteen to sixty years of age totaled about $88,000. The total life earnings of the college graduate were $160,000. Using this data, answer the following questions:

1. What is the difference in earning capacity of the high school graduate and of the man with little education? Assuming that the four years of high school training are responsible for this difference, what is each year of high school education worth?

2. In the same way, find the difference in the life earnings of the high school graduate and the college graduate, and the value of each of the four years of college training.

3. Of the $64,000 earned in a lifetime by the untrained man, only about $2,000 was earned in the first four years (the years which might have been spent in high school). How does the average annual income of these years compare with the value of the same amount of time spent in high school?

V. Using the data in Dr. Clark's table on page 77, answer the following questions:

1. The average earned income of all people gainfully employed has been estimated at about $1,350. From this figure, judge whether each of the incomes in Column 3 is high or low.

2. How does the average earning of the highest paid occupation in the table compare with that of the lowest?

3. According to Column 2 of the table, the present worth of a physician is $108,000, while that of an unskilled laborer is $15,200. The average unskilled worker probably stops school at the end of the eighth grade. Most physicians have about thirteen years of training beyond the eighth grade. From these figures, compute the value of each of the additional years which the physician spends in school. Besides the increased earnings, what other values does the physician derive from his work? Why is the work of the unskilled laborer of value to society?

VI. A committee may be appointed to investigate the wages paid to some of the young people in the community. The data should include the salaries of high school graduates and also of boys and girls who stopped school before graduation. Results of the investigation may then be placed on the blackboard for comparison and discussion. Of course, the names of the workers should not be used.

NOTES TO THE TEACHER:

I. From your own experience, you will probably be able to give the class some impressive illustrations of former students who have proved that education pays in terms of vocational success, prestige, social standing, and financial returns. It may also be effective to cite cases of drop-outs who have failed to achieve because of limited education.

II. If your school has made a follow-up survey of its graduates and drop-outs, it should be interesting at this time to direct the students in a study of the types of positions held and the average earnings of those who stopped school before graduation; of graduates who have been out of school a certain length of time; and of those who attended college.

III. In order to guide students more effectively, it will be necessary to know something of their present educational plans. For your use in the lessons which are to follow,

it may be helpful to secure from each student the answers to such questions as:

1. Do you expect to continue in high school until graduation? _____

2. Do you plan to attend college? _____

3. If so, what college? _____

4. If you are not going to college, do you have any other plans for your education following high school? _____

5. What are these plans? _____

6. What are your parents' plans for your further education? _____

7. For what vocation do you hope to prepare? _____

8. What subjects are you now taking in preparation for your higher education? _____

9. If you do not plan to complete high school, what subjects are you taking in order to get the greatest possible benefit from your shortened schooling? _____

10. Would you like to have:

    Names of colleges which offer training in specific fields? _____

    Names of trade schools offering particular vocational training? _____

    Names of reliable correspondence schools? _____

    Information concerning apprenticeship in certain trades? _____

ADVANCE PREPARATION FOR THE NEXT CHAPTER:

Before counseling individuals about attending college, it will be necessary for the teacher to familiarize him-

self with the academic records, the test scores, and the opinions of other teachers as to the abilities and potentialities of members of the class. Unless a sufficient number of tests have previously been given, it may be desirable to do further testing at this time. See Note II, pp. 99-100.

If Student Activity II, p. 98, is to be used, the lists of grades mentioned should be on hand before the opening of the lesson.

Mimeographed copies of the questions in Student Activity III, p. 98, will be helpful.

BIBLIOGRAPHY

Bliss, Walton B., Personality and School, Allyn and Bacon, Boston, 1938, Chap. 13.

Brewer, John M., Occupations, Ginn and Company, Boston, 1936, Unit B.

Chapman, Paul W., Occupational Guidance, Turner E. Smith and Company, Atlanta, 1943 (Revised), Chap. 33.

*Detjen, Mary E., and Detjen, Ervin W., Home Room Guidance Programs for the Junior High School Years, Houghton Mifflin Company, Boston, 1940, pp. 255-264.

Kitson, Harry Dexter, I Find My Vocation, McGraw-Hill Book Company, New York, 1937 (Revised), Chap. 8.

*McKown, Harry C., Home Room Guidance, McGraw-Hill Book Company, New York, 1934, Chap. 14.

Myers, G. E., Little, G. M., and Robinson, S. A., Planning Your Future, McGraw-Hill Book Company, New York, 1940, (Revised), pp. 328-336.

Smith, Henry L., Your Biggest Job--School or Business, D. Appleton and Company, New York, 1931, Chaps. 6-8.

Smith, Lewis W., and Blough, Gideon L., Planning a Career, American Book Company, New York, 1936, Chap. 1.

*For the teacher

CHAPTER IV

WHO SHOULD GO TO COLLEGE?

CHAPTER IV

WHO SHOULD GO TO COLLEGE?

Some reasons for going to college

At some time or other since you have been in high school, you have probably had occasion to consider the question, "Shall I go to college?" Perhaps many of you have felt that college was just another phase of your life which would come in due time, and have taken it for granted that you would go from high school into college quite as naturally as you were promoted from junior high school into senior high school. On the other hand, because of finances, the prospect of a job, or lack of encouragement from the family, some of you may have completely dismissed all thought of college. The problem of college entrance deserves more than snap judgment, because your final decision may change the entire course of your life.

Many young people visualize college as it is portrayed in motion pictures--a perpetual round of football games, dances, and dates. Others consider college merely as a means of postponing the time when they will have to start earning their own livelihood. There are still others who plan to enter particular colleges in order to carry on family traditions, to become members of certain fraternities or sororities, or to meet the "best people." Some persons even think that by attending college they will be automatically guaranteed a good

position, a high salary, a charming personality, and a certain amount of prestige, distinction and polish.

Looking at the matter sanely, we must realize that college is simply another school where the subjects are more difficult than in high school. One of the main differences lies in the fact that college attendance is optional. Not everybody wants to, can, or should go to college. With all the help he can get from parents, teachers, books, and serious self-analysis, each student should decide for himself two things: (1) whether he will have a need for a college education and (2) whether he has the ability to acquire the education.

There was a time when college was thought of chiefly as a place for obtaining a broad general education and a cultural background. But now a college education is considered a poor investment unless some practical use is afterward made of it. To be sure, by attending college, one should become a more cultured person, a better citizen, and a better homemaker. A college graduate should have a broader knowledge of the world in general, the capacity for a richer and fuller life, and the ability to render greater service to others. But in addition to all these benefits, the years spent in college should prepare one for a vocation. A young man who has spent four years in a liberal arts college and then has to attend a trade school before he can get a job shows very little evidence

of having made a thoughtful plan for his life. A girl who had expected to become a teacher, but is forced to work in a department store because she neglected to take a sufficient number of education courses in college, has, in a large measure, wasted her training. College graduates dislike to have to start at the bottom in a vocation, yet many of them have had no training which would fit them to start anywhere else. The value of your college education will be determined by the use which you can make of it. College is not an end in itself, but a means to an end.

Have you ever counted the cost of going to college and then tried to decide whether or not it is worth the time and effort? In one study made by the U. S. Office of Education, it was estimated that an average of $700 would probably cover the necessary expenses of the typical college student for one year. At this rate, a four-year course would cost $2800. A high school graduate earns approximately $1000 per year for the first four years after leaving high school. The cost of your college training plus the amount that you could earn in the same time if you did not go to college would thus amount to about $7000. Would going to college be the best possible use you could make of this much money and of four or more years of your life? If the training is necessary to your career and if you make good use of your time while in college, it will be a wise investment. Otherwise, it may be much better

for you to use the time in some other way.

To a certain extent, your choice of a vocation should determine whether or not you shall go to college. You know that in order to become an accountant, a dentist, or an aeronautical engineer, you must have college training; whereas, to become a filing clerk, an electrician, or a riveter, it is not necessary to go to college. But it is not enough to say, "I am going to be a chemist. Therefore, I shall go to college." Hundreds of students have completed their training for some particular field only to find that there were not enough jobs to go a round and they have had to find work in some other line. The professions which require a college education make up only five per cent of the total vocations. Yet a large percentage of the young people aspire to enter this small percentage of vocations. There are only a limited number of positions in any line of work. That is why there are many college trained men and women working at low salaries or at jobs in which they do not make use of their education. While college training is always desirable from the standpoint of personal improvement and cultural advancement, it may be of very little practical advantage unless carefully planned.

If you hope to enter a profession, investigate the field to find out if it is already overcrowded. Then analyze yourself to determine whether you have the ambition and the innate ability to obtain the necessary training.

Some qualities necessary for success in college

Are you college timber? Do you have the mental ability to succeed in college? Just as we all differ in physical make-up, disposition, and talents, we also differ in the degree of our intelligence. A basic requirement for success in college is a certain amount of academic ability. Some educators believe that the time will soon come when those who are accepted for college entrance will be selected exclusively on the basis of mental tests.

A number of standardized tests have been devised for measuring intelligence. By comparing the score which a person makes on one of these tests with the scores normally made by persons of his age, an I. Q., or Intelligence Quotient, can be established. A person who has the same learning ability as the majority of normal persons his own age rates an I. Q. of 100. Intelligence quotients ranging from 90 to 110 are considered average. Persons with lower than normal or average I. Q.'s have very little chance for success in college. One educator made a study in which he found that less than one-fifth of the students with intelligence quotients under 85 remained in college as long as two years. Of course, intelligence is not the only factor to be considered in deciding whether or not you are college material. But competition is keen, and in order to do just average work it is necessary to have better than average intelligence.

It is essential that those who aspire to enter fields which require college training have the learning capacity not only to finish college but also to compete with successful persons in the vocations. In many cases it would be much better to plan a different career in the first place than to waste time and effort trying to prepare for some field for which one is not mentally equipped. Studies have been made to show the approximate level of intelligence required for success in various occupations. The results of most of these studies are somewhat as follows:

RELATION BETWEEN INTELLIGENCE AND OCCUPATIONAL LEVEL

Superior Intelligence (I.Q. above 130)	Above average Intelligence (I.Q.,110-129)	Average Intelligence (I.Q.,90-109)	Below average Intelligence (I.Q., 70-89)
Architect	Accountant	Bookkeeper	Barber
Author	Dentist	Electrician	Bricklayer
Chemist	Designer	Filing clerk	Chauffeur
Editor	Minister	Machinist	Domestic servant
Engineer	Musician	Merchant	Butcher
Physician	Reporter	Nurse	Laborer
Professor	Social worker	Photographer	Messenger
Lawyer	Teacher	Policeman	Packer
Statistician		Printer	Porter
Scientist		Stenographer	Postman
Columnist		Typist	Shoemaker
			Telephone operator
			Watchman

Sometimes aptitude tests are also used in deciding on a college career. These are tests for measuring natural talent or ability for understanding or "catching on" to new things readily. For example, there are aptitude tests which help to

indicate in advance whether or not persons will be able to succeed in foreign language, art, engineering, clerical work, machine operation, teaching, music, law, and other types of work. Probably you have already been given tests to determine your aptitude for learning Latin, algebra, or geometry. Just as your teachers gave you such scientific help in choosing your high school subjects before you enrolled in the classes, so you may expect to take similar tests upon entering college. Many colleges refuse to accept students whose test scores show that they have little aptitude for learning college subjects. If your high school gives tests to predict success or failure in certain fields, take advantage of these tests before going too far with your planning.

Unless you can read, spell, write, and figure as well as the average high school senior, many colleges will consider you unprepared to do their work. The grade level which students have attained in certain subjects can be determined by scientifically prepared achievement tests. Thus, if the members of your class should take an achievement test in English, the results would probably show that some have no more knowledge of grammar, language usage, and literature than the average seventh grade pupil. Others would probably be equal to college freshmen so far as their learning in the field of English is concerned. If your achievement test score in English, science, mathematics, or any other subject shows that you have acquired

more knowledge in that field than the average person of your age, then you may feel encouraged to pursue the subject further. If, on the other hand, test scores show that you rank lower than persons in your grade normally rank, you may take this as an indication that you would probably continue to have difficulty with the subject if you studied it on a higher level. Colleges are not easily misled by the fact that a young person has a high school diploma. They know that he may be only a sixth grader in his mathematical skill or his reading ability.

Perhaps the best way to predict your own possibilities for success in college is to consider your present class standing. If all the members of your class were arranged according to their average grades, beginning with the highest and going to the lowest, how would you rank? Would your grades place you in the upper third, in the middle group, or in the lower third? Unless they choose their courses very wisely and have an unusual amount of determination to succeed, those who rank in the lowest third, fourth, or fifth of their high school classes have very little chance of graduating from college. Many colleges refuse to admit such persons. If one is not a good student in high school, why whould one expect to become a good student in college where competition is much keener and the subjects more difficult?

Do you like to study? Are you willing to put forth the necessary effort to learn? Do you like to delve deeply

into a subject and to find out more about it than the assignment actually requires? Can you read rapidly and understand and retain what you read? Do you have a fairly good vocabulary? Have you made above average scores on reading and vocabulary tests? Unless you can answer these questions in the affirmative, you will not find college work easy.

The attitude of the student is an important factor in deciding whether or not he should go to college. Young people who are willing just to "get by" are considered poor college risks. To be sure, college is a place for enjoying good times, but it is also a place for studying, learning, and achieving. Each year thousands of college freshmen are sent home at the end of the first semester because they cannot make passing grades. It is said that the most frequent cause of dismissal lies in the fact that these unfortunate boys and girls have not learned to use their time effectively. Lazy and indifferent study habits formed in high school may mean failure in college. There is a tremendous amount of reading and research to be done, and each student is altogether on his own. The professors neither supervise and direct the study nor do they constantly remind their students that notebooks and reports are due. If young people have not learned to budget their time, to organize their work, and to study without being prodded, they are not prepared for college life.

Even though high intelligence and scholastic aptitude

ratings are decided assets, they do not insure success in college. Some students who apparently had none of the necessary attributes have graduated simply because they had an unusual amount of ambition, persistence, interest, desire to learn, and ability to stick to the job until it was finished.

On their first day at college a group of five freshmen discussed their high school days, their home towns, and their college plans. Kenneth boasted that his I.Q. of 145 was the highest at the boarding house, after hearing scores of 130, 125, and 118 announced by his roommates. Jimmy, a quiet, retiring lad, made no comment. Later he admitted to one of the teachers that his I.Q. was only 96; that he had been advised by his high school principal not to enter college; but that he was determined to study mechanical engineering. The teacher shook his head and suggested some easier courses. But Jimmy's mind was made up. As the weeks went by, a great deal of talking and laughing could be heard in the boarding house rooms. The boys were enjoying college life. Kenneth felt that his superior intelligence would carry him through, so he concentrated on dramatics, glee club, and night clubs, to the exclusion of his studies. Three of the boys did an average amount of studying, but managed to find time for dates, movies, dances, and sports. Jimmy could always be found at his desk or in the library. He had worked out a schedule to include a reasonable amount of sleep and play and a great deal of studying. At the end of the first semester, Kenneth failed all subjects and was

dismissed from college. Three of the boys passed with average grades. By sheer grit and determination, Jimmy had made A's in several subjects and had missed being placed on the "dean's list" by only .03 of a point. So even though a person has only normal intelligence and has done only average work in high school, no one can say with any certainty that he cannot do college work.

Another question which must be considered is, "Can I finance four years or more of college training?" Those who plan to go through college without sufficient financial backing must be prepared to make sacrifices. Earning one's way calls for excellent health, unusual scholastic ability, and firm determination.

Many start but few finish

Of the one million boys and girls who graduate from high school each year it is estimated that one third enter college. A third of these college students drop out either during or at the end of the first year. Because of low scholarship, shortage of funds, dislike for college work, narrow reading interests, or lack of certain personality traits, more than half of those who start a college career never finish it. Some of them might have been better off had they never gone to college at all. Sometimes a small amount of higher education only results in a feeling of unhappiness and dissatisfaction because it does not give the person sufficient training to enable him

to reach the higher vocational level for which he had started to prepare. On the other hand, all else being equal, the person with some college training is given the preference over the noncollege person when applying for a position. Unless you feel that you can complete a college course, be sure to weigh both sides of the question before starting it.

Although many young people who are not good college material enter college every year, studies show that about half of the brightest and most promising students go directly from high school into jobs. In other words, the right persons are not all going to college. More foresight and planning on the part of high school students could alter this situation.

If, after a careful analysis of yourself, you decide that you have the ability, the desire, and the use for a college education, let nothing stand in your way. You may lack funds. Your family may need your support. But if you are sufficiently interested, you can work out some plan. (See Chapter VII.)

If, however, you decide that you are not the type of person who should go to college, do not feel inferior and attempt to offer excuses for it. There are hundreds of interesting and remunerative vocations which do not call for a college education. Put your best effort into becoming successful in the line of work for which you feel that you are suited--whether it requires college training or not.

STUDENT ACTIVITIES:

I. In most schools intelligence quotients are closely guarded secrets. Perhaps, however, your teacher may tell each of you individually whether your I.Q. places you in the Superior, Above Average, Average, or Below Average grouping as given in the table on page 91. Then consider the vocations which probably fall within your range of ability. Add to those listed in the table any other occupations which you think are on approximately the same mental levels.

II. Obtain from the school office or from your teacher a list of the average grades (without names) of the individuals in your class or in some other typical class on your grade level. Then, knowing your own average for the same period of time, determine your class standing. A person who ranks in the lowest fifth of his class has practically no promise of getting through college. One whose grades place him in next to the lowest fifth has very little chance of success in college.

III. Answer the following questions with a check mark in the proper column. Ask some of your teachers whether or not they consider your answers correct. Then, carefully weighing the number of "Yes" and "No" replies, write a summary of your opinion on "Why I Should Go to College" or "Why I Should Not Go to College."

SHALL I GO TO COLLEGE?

		Yes	No
1.	Do I have the necessary mental ability?		
2.	Does my choice of a vocation call for college training?		
3.	Do aptitude tests show that I have the natural capacity for success in this field?		
4.	Are my grades in the academic subjects average or better?		
5.	Do my teachers consider me college timber?		
6.	Do I know how to concentrate?		
7.	Do I like to study?		
8.	Do I have a real desire to learn?		
9.	Do I read rapidly and with understanding?		
10.	Do I have a fairly good vocabulary?		
11.	Do I study without being prodded?		
12.	Am I mature enough to manage my affairs without supervision?		
13.	Am I prepared to finance the four or more years of college training?		
14.	Am I willing to make sacrifices in order to go to college?		

IV. Write a descriptive paragraph giving your idea of "Students Who Should Go to College" or "Students Who Should Not Go to College." Take into consideration such things as vocational aims, talents, mental ability, economic status of the family, health, physical handicaps, study habits, general attitudes, and personality traits of the students.

V. Using the figures in Column 3 of the chart on page 77, answer the following questions:

1. If it costs an average of $700 per year for four years in college and if one must forego a beginning salary of $16.00 per week for the first two years after high school and $20.00 per week for the following two years, would one profit more in a financial way by attending college and becoming an engineer or by learning a skilled trade in a brief period of apprenticeship after high school graduation?

2. If the minimum cost for the eight years of medical training necessary to become a physician is $1,000.00 per year, and if a medical student is losing a possible salary of $35.00 per week for that length of time, how long would it take his earnings as a physician to repay him for his years of training?

NOTES TO THE TEACHER:

I. Some individual counseling may prove very effective at this time. A teacher who can look objectively at students' abilities, aptitudes, and interests can do a great deal toward encouraging the right ones to go to college and toward tactfully guiding into other courses those who are definitely not college material.

II. It may be helpful to the students to have a more complete explanation of the use of tests. Colleges which have a testing program usually employ three types of tests. (1) They predict general aptitude for college work by means of intelligence tests. (2) They test achievement in those high school subjects which will also be studied in college. (3) They test aptitude for some field of college work in which the student has had no previous training.

It is understood that tests should be given only by those

who are qualified to administer and interpret them. If the home room teacher has not been trained in testing or has had no previous experience, the counselor or some other person may be called upon to administer some tests which will help students to determine whether or not they should plan on going to college.

The following may be used to show the general achievement of high school students in the academic subjects:

Ruch, G. M., Iowa High School Content Examination, Psychological Corporation, 522 Fifth Avenue, New York. Sample copy, 25¢. (Designed for high school seniors and college students.)

Myers, Charles E., Ruch, Giles M., and Loofbourow, G. C., High School Progress Test, World Book Company, Yonkers, New York. Specimen set, 30¢. (Tests general high school achievement in mathematics, science, social studies, and English for grades 9-12.)

ADVANCE PREPARATION FOR THE NEXT CHAPTER:

The lesson on "How to Choose a College or University" will be much more effective if the necessary materials are collected in advance. These should include bulletin board materials, an ample supply of college catalogs and bulletins, motion picture films from near-by colleges, follow-up information concerning former graduates of your school who have gone to college and one or more of the following or similar books:

Hurt, Huber Williams, The College Blue Book, The College Blue Book, Hollywood by-the-Sea, Florida, 1933.

Lovejoy, Clarence E., So You're Going to College, Simon and Schuster, Inc., New York, 1940.

Marsh, Clarence Stephen, American Universities and Colleges, American Council on Education, Washington, D. C., 1940.

Ratcliffe, Ella B., Accredited Higher Institutions, Bulletin No. 16, U. S. Office of Education, Washington, D. C., 1938, Price, 20¢.

Ratcliffe, Ella B., and Smith, Elsie J., Educational Directory, Part III, Colleges and Universities, U. S. Office of Education, Washington, D. C., Price 15¢.

It will make the lesson more interesting if the committees suggested in Student Activity I, p. 119, are appointed far enough in advance to be able to function properly.

Mimeographed forms for use in Student Activity II, pp. 119-120, may be prepared in advance.

BIBLIOGRAPHY

Bennett, Margaret E., and Hand, Harold C., Beyond High School, McGraw-Hill Book Company, New York, 1938, Chap. 3.

*Dunsmoor, Clarence C., and Miller, Leonard M., Guidance Methods for Teachers, International Textbook Company, Scranton, Pennsylvania, 1942, Chap. 9.

Hamilton, Samuel L., What It Takes to Make Good in College, Public Affairs Committee, New York, 1941. (Pamphlet, 10¢)

Hawkes, Herbert E., College--What's the Use?, Doubleday, Page and Company, Garden City, New York, 1927.

Lovejoy, Clarence E., So You're Going to College, Simon and Schuster, New York, 1941, Chap. 24.

McConn, Max, Planning for College, Frederick A. Stokes Company, New York, 1937, Chap. 2.

Myers, George E., Little, Gladys M., and Robinson, Sarah A., Planning Your Future, McGraw-Hill Book Company, New York, 1940, pp. 337-342.

*Tunis, John R., Choosing a College, Harcourt, Brace and Company, New York, 1940, Chaps. 1, 10.

*For the teacher.

CHAPTER V

HOW TO CHOOSE A COLLEGE OR UNIVERSITY

CHAPTER V

HOW TO CHOOSE A COLLEGE OR UNIVERSITY

Why a wise choice is important

If you are going to college, it is not too early to begin looking about for the best institution in which to invest four or more years of your life and quite a sum of money. You should see to it that your time and money are spent where they will bring you the greatest possible educational returns. Attack the problem of choosing a college just as thoughtfully and judiciously as you would that of buying an automobile or planning an extensive trip.

First, take careful stock of yourself. Try to determine the field of work for which you are best suited mentally, physically, and emotionally. Consider the opportunities for employment in this field. Then when you are fairly sure of your goal, try to decide upon a program of study which will conform to your interests and your intellectual ability. Thoroughly investigate the institutions which can give you the necessary preparation, and make every effort to choose the one which most nearly meets your own needs educationally, vocationally, financially, and geographically.

Take into consideration the offerings of the various schools. No matter how attractive a college may otherwise be, it is not the one for you unless its courses exactly fit your needs. If you were about to purchase a new coat, you would not have it fitted on your Uncle George or your Aunt Susan. Yet

some young people have no more reason for selecting a certain college than that some member of their family once attended it. If you are interested in studying law, certainly you will not choose a university in which only engineering, business administration, and agriculture are taught. But it is not enough to know simply that the subject is offered. You should endeavor to find the institution which can give you the best possible training in that line.

On the surface, it may seem difficult to choose between a superior and an inferior college. The pictures in the catalogs, the success of the football teams, and the impressions gained on week-end visits to the campuses are very poor bases on which to judge the merits of various institutions. No matter if your father is an alumnus of a particular school or if your mother's best friend strongly recommends it for you, you should look into the qualifications of the college before you definitely decide to matriculate. It has been proven that colleges differ widely in the quality of the training which they give. Tests taken by the students have shown that those enrolled in the better institutions acquire knowledge much more rapidly than do those in the inferior ones.

The rating of a college is very important. If you attend a school which is not one of recognized standing and later wish to transfer to a different school, you may find that you will have to repeat certain subjects or that you will not

be given full credit for the work done in the inferior college. It is also true that sometimes only part credit or no credit at all is allowed when transfers are made between institutions with distinctly different objectives, even though both may be of equally good rating. A person who anticipates transferring from one college to another should obtain a statement from the school from which he hopes to graduate to the effect that the credits from the first school will be accepted. This is another reason for making a definite plan for your entire college course before leaving high school.

Start by making inquiries. Talk to people who are already engaged in the field of work for which you wish to prepare; find out where they received their training and what schools they would suggest for you. Write to the colleges in which you are interested and ask for information on specific points. Obtain lists of institutions approved by the various accrediting associations.

How colleges are rated

Colleges and universities in general are accredited by the state universities and the state departments of education of their own states. Lists of institutions accredited by each state may be found in the government bulletin, Accredited Higher Institutions.* There are also seven national and regional accrediting associations which examine the various

---

*Ratcliffe, Ella B., Accredited Higher Institutions, Bulletin No. 16, U. S. Office of Education, Washington, D. C., 1944. Price, 25¢.

institutions and rate them on the bases of financial condition, building and grounds, curriculum, administration, library, laboratories, admission policy, graduation requirements, student activities, and competence of the faculty. They are:

Association of American Universities
Middle States Association of Colleges and Secondary Schools
New England Association of Colleges and Secondary Schools
North Central Association of Colleges and Secondary Schools
Northwest Association of Secondary and Higher Schools
Southern Association of Colleges and Secondary Schools
American Association of Teachers Colleges

Lists of colleges accredited by these associations may be secured by writing to the secretary of each association, or by referring to Accredited Higher Institutions,* or the Educational Directory, Part III, Colleges and Universities.**

Colleges which offer professional education are accredited by a separate group of associations made up by members of the professions. These associations furnish lists of the schools in which training may be obtained and rate them as class A or class B or give them some professional rating.

---

*Ratcliffe, Ella B., Accredited Higher Institutions, Bulletin No. 16, U. S. Office of Education, Washington, D. C., 1944. Price, 25¢

**Ratcliffe, Ella B., and Smith, Elsie J., Educational Directory Part III, Colleges and Universities, U. S. Office of Education, Washington, D. C., Price, 20¢.

Before choosing a professional or technical school, find out which institutions are approved by the following associations:

Architecture--Association of Collegiate Schools of Architecture
Commerce--American Association of Collegiate Schools of Business
Dentistry--American Association of Dental Schools
Education--American Association of Teachers Colleges
Engineering--Engineer's Council for Professional Development
- Civil Engineering--American Society of Civil Engineers
- Chemical Engineering--American Institute of Chemical Engineers
- Electrical Engineering--American Institute of Electrical Engineers
- Mining Engineering--American Institute of Mining and Metallurgical Engineers

Forestry--Society of American Foresters
Journalism--American Association of Schools and Departments of Journalism
Law--American Bar Association
Library Science--American Library Association
Medicine--American Medical Association
Music--National Association of Schools of Music
Nursing--National League of Nursing Education
Optometry--International Association of Boards of Examiners in Optometry
Osteopathy--American Osteopathic Association
Pharmacy--American Council on Pharmaceutical Education
Social Work--American Association of Schools of Social Work
Theology--American Association of Theological Schools
Veterinary Medicine--American Veterinary Medical Association

Schools approved by each of the above associations may be found in the Educational Directory, Part III, Colleges and Universities*, and also in Clarence S. Marsh's American Uni-

---

*Ratcliffe, Ella B., and Smith, Elsie J., Educational Directory, Part III, Colleges and Universities, U. S. Office of Education, Washington, D. C., Price, 20¢.

versities and Colleges.*

Points to consider when choosing a college

In order to evaluate a college, you should know something about its general reputation, its method of admitting students, its faculty, its income, its library facilities, its equipment, and its success in placing graduates in positions.

There are institutions which accept any high school graduate who applies for admission. Most colleges, however, have set up certain scholarship requirements which must be met by those who wish to enroll. Good students who would profit from keen intellectual competition can become associated with a more scholarly group if they choose a school which is strict in its entrance requirements or which limits its enrollment to a select number. (See Chapter VI, pp. 124-139.)

When appraising a college, be sure to consider the excellence of its faculty. College catalogs frequently furnish information concerning the training and experience of their faculties by giving the educational degrees which each instructor holds, the names of the institutions which granted the degrees, the positions which the instructor has previously held, and any honors or public recognition which he has received. Of course, the best teachers are not always the ones

---

*Marsh, Clarence Stephen, American Universities and Colleges, American Council on Education, Washington, D. C., 1940.

who hold the greatest number of degrees or who have written the greatest number of books. The training and the experience of the teaching staff are quite significant, however, and should always be investigated when choosing a college or university. College faculty members rank in this order; professors, associate professors, assistant professors, instructors, and assistant instructors. Usually there are several professors in a department, one of whom may be named head of the department. It is important to note the distribution among the different departments of professors, associates, assistants, and instructors. Sometimes an otherwise superior university may have some inferior departments. The competence of the faculty members of the department in which one is especially interested should be investigated in particular. Because it is usually possible to obtain the best results from study under an instructor who is not carrying an exceptionally heavy load, it is well to consider also the average number of students per faculty member. A student may not get much individual attention in a school which has too few teachers for its enrollment.

Because the trend during recent years has been toward more research and study by the students and less formal instruction by the faculty, the college library has taken on added significance. If you contemplate entering a certain college, find out the number of volumes in its library, the amount

of money spent annually for books, and what additional library facilities are available to students. Many good institutions now have an interlibrary loan arrangement whereby they borrow and lend books with other well-established libraries.

It is advisable for those interested in technical courses to investigate the laboratory facilities and other equipment of various colleges. To some students, it is important to know something concerning the radio and motion picture equipment of a school. To others, it may be important to know whether a school has a military training department or the facilities for a civilian pilot training course.

Boys and girls who have been active in local church affairs often prefer to attend church colleges rather than nonsectarian ones. More than forty percent of all higher educational institutions are controlled by church denominations.

Still other factors may influence one in the choice of a college. Some institutions are exclusively for men; some are exclusively for women; some are coeducational; and some are coordinate. A coordinate college is one which is separately organized for women but operated in connection with a men's school. The men and women attend separate classes and sometimes use separate libraries but are taught by the same staff of instructors.

Among other things, the matter of location should be considered. Should you attend college in your own communi-

ty, in a near-by city, or at a distance? Going to college in a different section of the country has the advantage of a certain broadening effect. If you were reared in the south or the east, you may profit by spending your college years in the north or the west. On the other hand, if you expect later to establish a business or a profession in your home town, it may be to your advantage to attend college in the vicinity and thus to make contacts and friendships among the local young people. Those who expect to enter the licensed professions such as teaching, law, and medicine in their local communities will profit, too, by learning the practices taught in their state colleges and universities. By attending college in one's own state one can learn a great many helpful things about state government, politics, history, law, and agriculture.

In spite of previous plans to the contrary, most boys and girls eventually enroll in colleges in their own towns or within a radius of one hundred fifty miles from their homes. In the first place, this is the easiest thing to do. In the second place, because room and board make up the largest single item of expense, it costs less to attend college in one's own town; and tuition rates at state and municipal colleges are lower for residents. However, if the school in your locality does not offer the courses in which you are interested and does not completely satisfy your needs

in other ways, do not enroll in it merely because of its location. There are numerous ways of financing your education. (See Chapter VII, pp. 140-165.)

If all other advantages are equal, the choice between a college in a small town or in a city may present itself. Students who have been reared in large cities sometimes prefer the quiet and the natural beauty of a small town or village and the opportunity which such a location affords for making many friendships. Those who have been reared in rural sections may be attracted by the plays, operas, library and museum facilities, and the many other cultural and recreational advantages to be found in large urban centers. Young people who want to secure part time employment while in college find a greater number of opportunities and a wider variety of work in the larger cities.

It is well, too, to give some consideration to the size of the college. There are advantages to be enjoyed in both the small, independent college and the college within a large university. (A university is an institution which is made up of a number of colleges or schools. For example, within one university there may be a liberal arts college which provides a broad, general education, but gives no vocational training; and also colleges of law, medicine, education, engineering, business administration, dentistry, and many others.) The student in a smaller school has an opportunity to make more

social contacts and more intimate friends and to be better known by both students and faculty members. He also has a better chance to develop leadership and to participate in athletics and other student activities. A nonaggressive student may soon become lost in the masses at a large university. He is just one among many. However, many of the larger institutions have well-organized personnel departments and counseling services the purpose of which is to help individuals to develop personality and leadership qualities. In the large schools also there are usually better library and laboratory resources, a larger number of distinguished teachers, and a greater variety of courses from which to choose. There is, in addition, a certain amount of prestige connected with graduation from a large well-known college.

When comparing the merits of various schools, look into the matter of expense. Even though it may not be of primary importance to you, the cost of an education is always a factor to be considered. In some cases it has a great deal of bearing upon the choice of a college. Tuition, fees, board and room, books and supplies, clothes, laundry, recreation, transportation, and incidentals may amount to quite a sum in the course of a year. (See Chapter VII, pp. 141-145.)

Consider the ways in which different schools are financed. The ones which have a definite and sufficient source of income are more apt to have adequate library and laboratory

facilities and a better staff of teachers. It is only natural that institutions which are hard pressed for money will have outmoded equipment and poorly paid teachers.

Most colleges have endowments, or permanent sources of income, which allow them to offer superior training at a lower cost. Because these funds and the interest from them usually constitute the major source of revenue, the financial status of an institution may be measured to some extent by the amount of its endowment. When weighing the desirable features of various colleges, one should also take into consideration the amount of income received from the government and from other sources, the amount of expenditures, and the value of the buildings and grounds.

Since it affects the financial resources of a school, and consequently the cost and the educational return to the students, it is important to know how colleges are controlled. A third of all the higher educational institutions are under public control. These colleges and universities attract students who are seeking good instruction at low cost. As a general rule, privately controlled schools charge a higher rate of tuition than do those controlled by the city or the state. According to an act of Congress, each state has been offered a substantial grant of public land for the endowment and support of institutions which stress the teaching of agriculture, mechanic arts, and other scientific and classical studies. Under this act, sixty-nine institutions, known as land-grant col-

leges, have been established. Thus at the expense of the government, students may attend land-grant colleges at a lower rate of tuition.

Sometimes general living expenses may be reduced by attending junior college, an institution which offers only the first two years of college work and which grants an Associate of Arts (A.A.) degree. There are in the United States more than seventy junior colleges which charge no tuition to students living in the cities or districts in which they are located. In some states junior college training is provided by law for all high school graduates.

Junior colleges are of the greatest value to those who want to continue their general education beyond high school and who can thus terminate their higher education after two additional years; to those who need to become more mature before leaving home to attend senior college; and to those who wish to prepare for some of the semi-professions for which two years of college training are considered necessary and sufficient. A junior college may serve the purpose of those who want to continue their education but do not yet know in what field they want to specialize. At least, the time can be well spent in acquiring culture, developing an interesting personality, and learning to associate freely and easily with cultivated people. Even though you have a definite goal, you may safely plan to secure the first two years of your basic college work in a junior college near home and then transfer to a higher insti-

tution for specialization. The type of general education given in junior colleges is usually about the same as that given in the lower division of four-year colleges or universities. But if you expect to follow this plan, be sure that your program of studies in junior college fits in well with your upper division college work. It is well to have an understanding in advance that the work taken in the junior college will be accepted by the senior college from which you hope to graduate. Otherwise, it may be a disadvantage to break up the four years of college work by attending different schools.

How to find out about colleges

From such sources as college catalogs, American Universities and Colleges*, and the College Blue Book**, select a group of colleges which would give you a good cultural background or a good vocational preparation, depending upon what you most want and need. Then, taking each school separately, consider its standing, its faculty, its admission requirements, its fees, its size, and its location. By a process of elimination, narrow your choice down to a few colleges which have the features which you consider most important. Make comparisons between these few. If they are all of recognized standing and if they all meet your needs equally well, then compare them in

---

*Marsh, Clarence Stephen, American Universities and Colleges, American Council on Education, Washington, D. C., 1940.

**Hurt, Huber William, The College Blue Book, The College Blue Book, Hollywood by-the-Sea, Florida, 1938.

the light of less important matters. Which one would offer you the type of social life which you would most enjoy? Which one would give you the best opportunity for the development of your athletic ability, your musical talent, or any other interests or hobbies? Everything considered, which school would give you the best preparation for your ultimate goal, the best all-round education, and the greatest number of other advantages which are important to you personally?

Before finally applying for admission to a college, it is a good plan to visit the campuses of two or three institutions which apparently meet your requirements. Together with your parents, you may see some of the classrooms, the library, the gymnasium, and the dormitories. You may meet and talk with some of the officials and the professors. Perhaps you will want to find out something about the community in which the school is located. If the qualifications of two institutions are equally satisfactory, the atmosphere of the campus, the physical surroundings, and the personalities of the faculty and staff should help you to make your final decision.

STUDENT ACTIVITIES:

I. A different committee may be responsible for each of the following:

1. Collect graphic literature, college yearbooks, and other illustrative material which can be used to add color and interest to this lesson. It is possible to prepare a very attractive bulletin board with this material.

2. Obtain the most recent issue of the Educational Directory, Part III, Colleges and Universities, prepared by the Federal Security Agency, U. S. Office of Education, Washington, D. C. (Price, 20¢). Familiarize yourselves with the pamphlet and be prepared to answer questions concerning the accrediting of various institutions.

3. With the help of catalogs and interviews with recent graduates, prepare to report to the class on the regulations, customs, traditions, athletics, social functions, student activities, and other interesting features of several colleges in which the group is interested.

4. Write to the registrars of various colleges for catalogs, copies of student publications, and for answers to questions which have been brought up by members of the class but which cannot be answered by reference to available literature. (Names of universities and colleges, lists of schools which give training in each of the professions, and names of officials of the schools may be obtained from the American Educational Directory, by Homer L. Patterson, American Educational Company, Chicago, 1943, which can be found in most public libraries. Lists of colleges are also found in So You're Going to College, by Clarence E. Lovejoy, Simon and Schuster, New York, 1941, and in Which College? by Rita S. Halle, The Macmillan Company, New York, 1931.

II. Make a chart giving information concerning several colleges which offer training in the fields in which you are most interested. If you do not plan to go to col-

lege, collect this data concerning some of the well known schools of your state. Even though you may not attend college yourself, such facts concerning your state institutions should be a matter of general information. This form is suggested:

COLLEGE DATA

Type of School	Location	Accredited by	Enrolment	Entrance Requirements	Departments & Faculty	Cost	Volumes in Library	Value of Bldgs. Grounds Equipment	Amount of Endowment per Pupil

In the column, "Type of School", state whether or not the college is coeducational, whether it is sectarian or nonsectarian, how it is controlled, and whether it is a professional, technical or liberal arts college.

Under "Location", give the city and state, the type of environment--whether in rural, suburban, industrial, or mountainous area, the size of the town, the climate, and the desirability of the community as a place of residence for several years.

Under "Accredited by", give names of the accrediting associations by which the school is approved. Note especially the ratings of the different departments within the university.

Under "Enrolment", give the total enrolment of the university and the enrolment of the particular department in which you are interested.

In the column headed "Entrance Requirements", give the general requirements for admission to the university and the special subject requirements for entrance to the particular department in which you are interested.

In the "Departments and Faculty" column, list the various branches taught (accounting, modern language, home economics, etc.) and the number of faculty members in each department.

Under "Cost", give the average annual cost of tuition, fees, books, and room and board.

In considering the number of books in the library, it can fairly be assumed that a school which has less than 50,000

volumes does not have an adequate library.

All of this information can be found in college catalogs, and in American Universities and Colleges, edited by Clarence Stephen Marsh and published by the American Council on Education, Washington, D. C. The College Blue Book, by Huber William Hunt, published by the College Blue Book, Hollywood by-the-Sea, Florida, is also a source of helpful information. After the above chart is complete, make a careful comparison of the advantages of the various colleges so far as meeting your individual needs is concerned.

III. Each member of the class may interview one person who has graduated from college and find out his reasons for selecting his particular college. These reasons should then be compiled and studied by the class.

IV. Find the meanings of these abbreviations of college degrees: A.B., B.S., M.A., Ph.D., M.D., LL.D., M.E., M.C.E., M.R.E. Add others to the list.

V. Hold a class discussion of the following questions:

1. In your opinion, is it better to obtain the first two years of one's higher education in a junior college or to go directly to a university for one's entire training?

2. What are the advantages and the disadvantages of attending a liberal arts college before specializing? of going directly into a professional or technical school?

3. Discuss the advantages and the disadvantages of:

   A large or a small college
   An urban or a rural college
   Coeducation or separate education
   Attending college in one's home town or away from home
   A privately or a publicly controlled school
   A church or a nonsectarian school

4. There should be a ratio of at least one teacher to every ten college students. Which of these colleges has the best faculty-student ratio?

College	No.of faculty members	No. of students
A	57	794
B	190	3,569
C	310	3,196

NOTES TO THE TEACHER:

I. Many colleges have motion picture films showing campus scenes, student activities, use of the buildings, and other phases of college life. Perhaps you may be able to secure such films from the near-by schools in which a number of your students are interested. If a school is not too distant, a representative of the institution may be asked to show the film and discuss it.

II. If a follow-up survey is made by your school, the students may find it interesting to know what colleges attract the greatest number of graduates.

ADVANCE PREPARATION FOR THE NEXT CHAPTER:

It will be helpful to have on hand for use in the next lesson:

1. A copy of William W. Hinckley's Handbook of College Entrance Requirements, Bulletin No. 13, U. S. Office of Education, Washington, D. C., 1941. Price, 15¢.

2. Mimeographed copies of the chart for use in Student Activity II, pp. 136-137.

3. Bulletins mentioned in Note II, p. 137.

BIBLIOGRAPHY

Bennett, Margaret E., and Hand, Harold C., Beyond High School, McGraw-Hill Book Company, New York, 1938, Chap. 3.

Davis, Wayne, How to Choose a Junior College, Harper and Brothers, New York, 1939.

*Forrester, Gertrude, Methods of Vocational Guidance, D. C. Heath and Company, Boston, 1944, pp. 241-258.

Halle, Rita S., Which College?, The Macmillan Company, New York, 1931.

Lovejoy, Clarence E., So You're Going to College, Simon and Schuster, New York, 1941, Part II and Chaps. 25-27.

McConn, Max, Planning for College, Frederick A. Stokes Company, New York, 1937, Chap. 4.

Maule, Frances, Men Wanted, Funk and Wagnalls Company, New York, 1938, Chap. 3.

Tunis, John R., Choosing a College, Harcourt, Brace and Company, New York, 1940, Chaps. 4, 7, 8, 9.

*For the teacher

CHAPTER VI

COLLEGE ENTRANCE REQUIREMENTS

CHAPTER VI

COLLEGE ENTRANCE REQUIREMENTS

Colleges do not admit everyone

You have been urged to select your college with care. But colleges also reserve the right to select their students. Too often young people take it for granted that just as they have been promoted from elementary school into junior high school and from junior high school into senior high school, they will be as readily accepted into college. It is not nearly as simple as that. Colleges want students who have proved that they are interested in studying, who have received a good foundation in high school, and who have the capacity to do the required college work.

If, then, you want to be sure that you can enter the college of your choice when the time comes, you should begin in the junior high school-certainly not later than the eleventh grade-to study college entrance requirements. You cannot afford to postpone this until a few months before graduation, because entrance requirements are based largely upon what a student has done during his entire high school career. In fact, if you want to be certain of meeting the requirements of a particular institution, it may be necessary even before the beginning of the freshman year to plan your whole high school program accordingly. Otherwise, it may not be possible to obtain in four years all the credits demanded.

Admission to college is usually based on one of three plans. The first is the certificate plan, which simply indicates graduation from an accredited high school with the required number of credits. An accredited high school is one which complies with the standards set up by the state university or the state department of education relative to such things as preparation of teachers, library and laboratory facilities, and classroom equipment. The second is the examination plan by which students are admitted on the basis of entrance examinations. The third plan is a combination of the other two. Some colleges make a number of requirements of the entering student. They may prescribe certain standards as to rank in high school class, participation in extracurricular activities, recommendations from principals, results of personal interviews, and scores on aptitude and placement tests.

Admission based on high school credits

Colleges differ a great deal in their demands upon entering students, but one of their requirements is almost universal. Ninety-eight percent of the institutions of higher education require from applicants a transcript of high school units. (A unit represents a year's study in a subject which meets five times per week.) Most of the colleges specify fifteen or sixteen units as necessary for entrance. A very small percentage of the institutions do not require any particular number of units, although most of them ask to see the high

school transcript of credits anyway.

Each year fewer colleges and universities are requiring a definite number of units in English, mathematics, foreign language, science, social science, and other subjects. But since the majority of them still demand certain subjects for entrance, students who plan to attend particular colleges should make sure of taking the subjects specified by these institutions.

Whether they make any other definite subject requirements or not, most colleges require three units of high school English. Some schools require four units in this field.

In colleges which require foreign language for entrance, the most common requirement is two units in the same language. A year in one and a year in another are not usually acceptable. There are a smaller number of institutions which require three years of language credits for entrance. A few colleges, most of them in the New England states, still demand four, five, or six years of foreign language for admission. Where such requirements are made, it is usually specified that three or four of the units must be in Latin or Greek and the remaining ones in a modern language. This means, of course, that two languages must be studied simultaneously at some time during the student's high school career. A large number of institutions have done away with all foreign language requirements. Some, but not all, of the schools which do not require

foreign language credits for admission may require students to complete a certain amount of language study after they enter college. Students who plan to attend colleges which require the study of foreign language as a part of the college work usually profit by taking some foreign language in high school, even though it is not an entrance requirement.

Mathematics is another field in which many colleges make definite entrance requirements. Some colleges will admit students who have never studied advanced mathematics in high school, while some others demand two and a half, three, three and a half, or even four years of high school mathematics. The most common admission requirement, however, is one year each of algebra and geometry. Three units of mathematics, including one and a half of algebra, one of plane geometry, and a half of solid geometry are the usual requirements of colleges of engineering.

History and science are two other fields in which the high school graduate may be required to have completed work. Colleges which set up requirements in these subjects usually specify one or two years of each.

It is the common practice to have different entrance requirements for the various colleges within a university. For example, a student who plans to take the engineering course at a certain university may have to present more high school units in science and mathematics, while one who

plans to enter the liberal arts college of the same university may have to offer more units in foreign language.

Some colleges specify that a certain number of high school units must be earned in academic subjects and that only a limited number (usually from two to six) may be offered in commercial, vocational, music, art, and similar subjects.

Instead of rigidly requiring a given number of units in certain subjects, a few colleges use another system. They require that applicants for entrance present their high school units in the form of majors and minors, usually two of each. A major consists of three units earned in any one field of study and a minor consists of two such units.

Admission by examination

A small number of colleges, most of them in New England, accept only those students who can successfully pass special examinations. Originally, such examinations were given by all colleges to their applicants. In 1900, the College Entrance Examination Board was established for the purpose of preparing and administering college entrance examinations the results of which would be accepted by practically every university, college, and scientific school in the United States. Of course, these institutions reserve the right to determine in what subjects the examinations shall be given and what ratings shall be acceptable for admission.

The College Entrance Examination Board holds its ex-

aminations in April, June, and September, in all the larger cities and in many other centers throughout the country. This board, located at 431 West 117th Street, New York City, publishes bulletins of general information, including the dates of the examinations, lists of examination centers, information regarding registration, and time schedules. If the college of your choice requires College Board Examinations, you should write for one of these free bulletins. You may also want to obtain from the College Entrance Examination Board a copy of Definition of the Requirements (price, 30¢), which describes the material covered in each of the examinations.

Some high schools make special provision for preparing those students who expect to take the "college boards." Such students should welcome any opportunity for additional drill beyond that required in the regular courses of study in the fields of English, foreign language, mathematics, science and history. Those who would like further help can order from Ginn and Company, Boston, Massachusetts, complete sets of the questions asked in all subjects in former years, published in separate volumes for each year.

Some colleges not directly associated with the College Entrance Examination Board still give their own examinations as a part of their admission plan. Frequently this is done in a case where the student comes from outside the state or from an unaccredited high school, or when he needs to make

up a particular credit for entrance.

In many states, too, examinations in high school subjects are given by the state departments of education. Certificates of the examinations are then acceptable for meeting college entrance requirements in those states.

Some of the colleges of New York State admit only those who have made grades of 65 to 85 percent or better (depending upon the college) on the examinations given by the New York State Board of Regents. Although the Regents' examinations are intended only for pupils in New York, practically all colleges in the country, except the College Board colleges, accept the results of these examinations for entrance credit.

Other matters which affect college entrance

It is not always enough for the prospective college student simply to have made passing marks in certain high school subjects. There is an increasing tendency among colleges to place more stress upon the merit of the individual than upon the number or the variety of credits he may have earned. Many educators feel that if a student is intelligent and has made good records in high school, it makes little difference what subjects he has taken.

Most colleges and universities accept only those students who have been certificated by the high school principal. This means that the principal makes a formal statement

to the effect that the student has completed his work with marks which indicate probable success in college (not merely passing grades); and that he has good moral character, desirable personality traits, effective work habits, and ambition. Some colleges consider the principal's estimate of ability and character a very important factor in judging the student. Information concerning his aims and his traits is sometimes obtained from personal history sketches which the student himself is asked to write.

Many colleges now give aptitude and achievement tests covering reading, English, foreign language, general cultural subjects, and specific vocational fields. Usually those making low scores are not granted admission. Satisfactory ratings on college aptitude and intelligence tests are required for admission by about 35 percent of the institutions of higher learning. In fact, one college is so definite in its requirements as to refuse admission to any student whose I.Q. is below 105.

More than half of the colleges and universities consider the health of a student before admitting him. They require either a family physician's statement regarding the applicant's health or a physical examination at the institution. In a few instances smallpox and diphtheria vaccinations are required.

Selection of students in many colleges is based

wholly or in part on their rank in their high school classes. Some institutions place rank in class as the thing which should carry most weight in the selection of students. They specify that only those whose average places them high in the graduation class will be admitted. Graduation in the upper half, third, quarter, fifth, sixth, seventh, or even in the upper tenth may be demanded. Some colleges simply state that those who have ranked in the lowest third or fourth of their high school classes will not be allowed to enter. In other schools, those who rank low in their classes are admitted on probation or on condition that they make a certain score on comprehensive tests. Young people cannot be too strongly impressed with the fact that a poor grade of work in secondary school may prove a serious handicap to them when the time comes to enter college.

Failing grades or low averages in a certain number of high school subjects may keep one from being admitted to college. Some colleges and universities require that entering students have an average of from 75 to 85 percent in each subject which they have studied; others require an average of 10 percent above the passing mark of the high school from which they came; while other colleges refuse admission to students who have any high school averages below "C" or "B". Sometimes lower grades are allowed in only a fixed number of subjects. Although some colleges take into consideration all grades

earned in high school, others attach more weight to those earned in the junior and senior years. Investigations have shown that the poorest college work is done by students with low high school averages. Because this is true, most colleges make a careful study of the high school records of prospective students.

There are still other matters of less importance which may affect college entrance. For instance, preference is sometimes given to sons or daughters of alumni or to members of certain races or religions. In a particular year it may be found that the standards for admission to a few schools are more stringent for one sex than for the other. This is due to an effort on the part of the school to maintain a certain previously determined ratio between the number of men and women students.

A few colleges follow the plan of sending representatives to meet prospective students in their homes so that they may determine the need of each individual and decide whether or not this need can be filled by the particular college. Also a few colleges require that would-be students visit the college for a personal interview with the dean, the registrar, or other member of the staff.

Some colleges request that each prospective student furnish character, social, and business references from his pastor, school guidance officer, or from someone in the com-

munity who can give evidence of his financial responsibility.

If you have decided that you are going to college, begin as early as possible to make your plans. Do not think that simply because you have taken the "college preparatory course" in high school, you will be prepared for entrance to any college. Narrow your choice down to a small group of colleges of the general type which will give you the training you need. Then plan your high school program so that you will have the proper credits for entrance. As soon as you can decide with any degree of certainty upon the particular college which you shall attend, study the catalog carefully and be sure that you are preparing to meet all specific requirements for entrance. Endeavor to earn high marks in all subjects and to make such a record for yourself that your school principal will be proud to recommend you.

STUDENT ACTIVITIES:

I. Write to the registrar of the college in which you are most interested. Request an application blank and ask for detailed information concerning registration. Find out how long in advance one should apply for admission.

II. Using college catalogs and the Handbook of College Entrance Requirements*, fill out a chart similar to the one below, giving information concerning the admission requirements of several colleges in which you are most interested. Fill in only those lines needed to give the admission requirements of the particular schools which you are investigating. If there are any points about which you are not clear, write to the dean or the registrar of the college for further help. Even though you do not now expect to go to college, collect this data regarding some of the institutions of your state or locality. Circumstances often change and students change their minds about college. It is well for all those who are nearing high school graduation to know something about this subject.

COLLEGE ENTRANCE REQUIREMENTS

	I	II	III
Names of Colleges			
Total No. of high school units required			
No. of English units			
No. of mathematics units			
No. of science units			
No. of history units			
No. of foreign language units			
No. of units in other subjects			
Major and minor requirements			
Rank in high school class			
Check those which require:			
Test scores in:			
High school achievement			
Intelligence			
Aptitude for college subjects			
Recommendation of high school principal			
Entrance examinations given by:			
The college			
College Entrance Examination Board			
New York State Board of Regents			

*Hinckley, William W., Handbook of College Entrance Requirements, Bulletin No. 13, Federal Security Agency, U. S. Office of Education, Washington, D. C., 1941. (Price, 15¢)

Physical examination
Personal interview
Other requirements
Requirements which I can meet at present
Requirements which I can not meet at present

NOTES TO THE TEACHER:

I. If this lesson is to be a success, it will be necessary to have on hand enough current college catalogs so that each student may have one for study. It will probably create more interest to have each one write for his own catalog well in advance.

College catalogs make very dull reading unless students are first instructed in their use and filled with a curiosity to find definite information. Call special attention to the section on admission requirements, noting the general requirements and any unusual ones. Discuss with the class the meanings of the terms: units, credits, prescribed subjects, electives, and certifying grades.

II. If any members of your class plan to enter colleges which require College Board Examinations, you may want to help them to plan accordingly. They will need intensive coaching and drill work.

For specific information, write for the Bulletin of General Information (free) and Definition of the Requirements (price, 30¢), published annually by The College Entrance Examination Board, 431 West 117th Street, New York, N. Y.

III. If scholastic aptitude tests have not previously been administered, they may be given at this time. The tests given to entering college students are usually designed to measure bookish aptitude. However, some of the general aptitude and achievement tests prepared for high school students may give the boys and girls an idea of what they are to expect and of how they now rank with their fellow students.

ADVANCE PREPARATION FOR THE NEXT CHAPTER:

Activities II, III, V and VII, pp. 163-164, should

be assigned in advance so that the reports of the students may be prepared and the pamphlets may be on hand in time for the next class meeting. The bulletins mentioned in Activities I, II, and VI can be used more effectively if there are a number of copies for distribution.

BIBLIOGRAPHY

Hamrin, Shirley A., and Erickson, Clifford E., Guidance in the Secondary School, D. Appleton-Century Co., New York, 1939, pp. 310-314.

Hinckley, William W., Handbook of College Entrance Requirements, Bulletin No. 13, U. S. Office of Education, Washington, D. C., 1941.

Hurt, Huber William, The College Blue Book, The College Blue Book, Hollywood by-the-Sea, Florida, 1933.

Marsh, Clarence Stephen, American Universities and Colleges, American Council on Education, Washington, D. C., 1940.

McConn, Max, Planning for College, Frederick A. Stokes Company, New York, 1937, Chap. 6.

CHAPTER VII

FINANCING YOUR COLLEGE EDUCATION

CHAPTER VII

FINANCING YOUR COLLEGE EDUCATION

The cost of a college education

One of the questions uppermost in the minds of thoughtful young people who are considering college is, "What does college cost?" The U. S. Office of Education has issued a bulletin, Working Your Way Through College*, which answers this question quite definitely. Estimates in this bulletin are based on liberal arts courses. Professional training is generally somewhat higher priced.

It is estimated that about $700 will cover the typical necessary expenses for one year, not including clothing, amusements, and travel. From $50 to $175 must be added for these items, depending upon the social activities of the school, the type of clothing needed, and the distance that must be traveled. These estimates are based on costs for students who are living away from home. Of course, those who attend college near home may eliminate or reduce the cost of room, board and travel. Expenses vary widely according to the locality, the type of college, and the ability of the student to manage his funds wisely. As a rule, self-supporting students learn to spend less by living economically and budgeting

---

*Greenleaf, Walter J., Working Your Way Through College, Federal Security Agency, U. S. Office of Education, Washington, D. C., 1941. (Price, 20¢)

carefully. Those whose finances are not limited usually spend more than the estimates given here. These are simply conservative minimum figures which show the amount of money needed by an economical student for his first nine months of college. Some experts believe that from $50 to $300 per year should be added to the "minimum budget" figures given in college catalogs and advertisements.

Tuition rates are lowest in state universities and state colleges which are supported by taxes. Some of these institutions are free to residents of the states in which they are located. Out-of-state students usually pay $50 or more in addition to the charge made for residents. The next lowest tuition charges are found in church controlled schools. Rates are highest in the privately endowed colleges and universities, especially in women's schools in the East. However, the relatively high tuition charges are often offset by liberal scholarship allowances and student-aid funds for worthy students.

The table below shows a comparison of tuition rates in various types of institutions, the range from the highest to the lowest costs, and the minimum annual expense (not including cost of clothing, travel, or off-campus amusements) in each type. Note that in the state universities or colleges which charge tuition, the rates for state residents range from $20 to $300 per year; the average is $80. Tuition in privately

endowed colleges ranges from nothing to $1,000 per year. Notice also that the expenses of college women are generally higher than those of college men.

COST OF GOING TO COLLEGE*

Type of college or university	Tuition		Minimum annual expens	
	Range	Average	Range	Averag
1	2	3	4	5
State colleges or universities:				
That charge tuition . .	$20-$300	**$80	$142-$850	$437
That do not charge tuition . .	None	0	112- 600	404
Denominational institutions:				
For men	$65-$400	$200	$169-$1200	$615
For women	0- 500	195	230- 1100	634
Coeducational	15- 350	162	225- 1100	469
Privately endowed colleges:				
For men	130- 450	341	520- 1100	866
For women	150- 1000	381	447- 1900	992
Coeducational	0- 400	231	199- 1535	637
Teachers colleges		**38		290
Normal schools		**61		277

**Average tuition for state residents; out-of-state students pay additional amounts.

Besides tuition, colleges usually charge other fees for matriculation, health service, athletics, use of the library and gymnasium, and incidental fees which entitle the student to the use of the buildings, equipment, and various services of the college. There is often a student activity fee of from $10 to $15 which entitles one to admission to home games, athletic

*Greenleaf, Walter J., Working Your Way Through College, U. S. Office of Education, Washington, D. C., 1941, p. 12.

events, concerts, use of the student union building, a subscription to the college paper, a copy of the college yearbook, and other privileges. There may also be laboratory fees for those taking certain courses. The total amount of fees varies widely with different institutions. In the majority of schools, it does not exceed $30; although in a few cases it ranges from $100 to $300. Sometimes colleges partly make up for low tuition rates by raising the additional "fees that all students pay." In one state college, residents are charged no tuition, but all students must pay other fees amounting to $160. Students attending one denominational school pay only $15 tuition but are charged $201 for other fees.

The cost of board and room is one of the largest items of college expense. Great numbers of students live in residence halls or dormitories where rooms are reasonably priced. When they take their meals in the dormitory, there is usually a single charge for board and room. Where there are no dormitories on the campus, college officials assist students in finding desirable living quarters in rooming houses or private homes. Many schools now have cafeterias. In order to reduce the cost of living, a number of institutions have aided students in establishing cooperative dormitories and eating clubs. These cooperatives are planned and managed by the students themselves. By doing their own house-

keeping and by cooking and serving their own meals, self-supporting students can greatly reduce their expenses.

The U. S. Office of Education has found that minimum charges for meals in state colleges and universities vary around $5 per week, although $7 per week is a closer estimate for those in the West, and $9 for those in the East. In privately controlled institutions, typical weekly rates for meals vary from $6 in coeducational colleges to $7 in the men's colleges and $10 in the women's colleges. The minimum rent paid for dormitory rooms ranges from $1 per week in some state universities to $4.50 per week in some women's colleges. The cost of room and board ranges from $103 to $1,365 for the nine months of the college year, depending upon whether it is in a self-help college or an expensive college for women. However, room and board in the average American college cost between $200 and $400 per year.

There are other miscellaneous expenses which may be large or small, depending upon the individual. The average student usually spends from $20 to $30 per year for books and materials. This amount varies, of course, with the subjects studied. The cost of laundry, clothes, personal items, and amusements can best be estimated by the student himself according to the way in which he is accustomed to living. Many young people economize by mailing their laundry home or by doing it themselves.

A young person who hopes to belong to a college fraternity or sorority should have additional funds in his budget. In the freshman year, membership costs from $100 to $160; and each succeeding year, from about $45 to $81. Initiation fees range from $15 to $200 and house dues may run as high as $10 a month. Fraternities usually employ their own members to work about the chapter houses. Thus it is possible for a few self-supporting students to earn their living expenses in fraternities by waiting on tables, tending furnaces, or acting as stewards or house managers.

One frequently hears high school students remark that they would like to go to college but that their families cannot afford to send them. Young people who really want an education are seldom stopped by lack of money. If you are college material, if you have the desire for further education, and if you are willing to put forth the necessary effort, you can always find ways and means of financing your own college training.

Scholarships

Every year millions of dollars in scholarships and fellowships are granted to worthy students to help them meet college expenses. A scholarship is an allotment of money or credit made to an undergraduate, while a fellowship is a grant made to a graduate student (one who has already received the bachelor's degree). The money for most scholarships is ob-

tained from the income on invested funds donated by wealthy friends of the colleges. Usually only the interest is used so that the original fund may be continued indefinitely.

Actual cash is seldom awarded, because the value of the scholarship is usually applied to tuition and fees, and not to the personal needs of the student. Most of the regular scholarships are granted to needy students. Honor scholarships are awarded for excellence in classroom work and school activities. Scholarships vary in value from $10 to about $2,000. Some of them cover only tuition in part or in full; others cover all college expenses. Some of them are good for only one year; others may be renewed each year throughout the student's college career depending upon the quality of class work which he maintains. Most scholarships are outright gifts to the students, but some of them carry a moral obligation to be repaid when the student is financially able to do so. It is necessary to repay the value of a "work scholarship" in some service to the school such as marking papers for a professor, assisting in a laboratory, or working in a college office.

The states of Florida, Illinois, Indiana, Louisiana, Maine, Maryland, New Jersey, New York, Oregon, Pennsylvania, Rhode Island, Texas, Utah, Vermont, Virginia, and Wisconsin offer scholarships to their state residents who are able to meet the requirements of college entrance. Students of good

character and ability who need the aid are eligible to take examinations for the scholarships. In some states the holders of these scholarships are required to study agriculture, education, or medicine and to agree to do agricultural work, teach, or practice medicine in the state for a time after graduation, but for the most part there are no such obligations. The number of scholarships awarded is generally divided equally among the legislative districts or counties of a state. The awards vary in amount from $50 to $350 annually. They may be held from one to four years, depending upon the scholarship. Students who are interested may obtain information concerning state scholarship plans by writing to their respective State Departments of Education in the state capitals.

In addition to the regular state scholarships just described, state universities and colleges in Arkansas, California, Colorado, Illinois, Indiana, Iowa, Louisiana, Maine, Michigan, Montana, Nebraska, Nevada, New Hampshire, Ohio, Vermont, Virginia, and Wyoming award scholarships to graduates of accredited high schools in these states. These awards are taken from the funds provided for instruction and are generally based on the ability and the need of the students.

Most of the states also grant special scholarships to orphans of veterans of World War I. To find whether such allowances are available in your own state, write to your state university.

The La Verne Noyes scholarships are awarded by forty-nine colleges and universities located in Alabama, California, Colorado, Illinois, Indiana, Iowa, Kansas, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Mexico, New York, North Dakota, Ohio, Oklahoma, South Dakota, Tennessee, Texas, Wisconsin, and the District of Columbia. These scholarships, which provide for the payment of tuition in part or in full, are awarded without regard to differences of sex, race, religion, or political party, to deserving students who need assistance in order to attend college. These students must be citizens of the United States and must themselves have served in the Army or Navy in World War I, or be descended by blood from someone who served in that war. Those who are interested should inquire of their State Departments of Education, or of the Estate of La Verne Noyes, 2500 Roosevelt Road, Chicago, Ill.

Scholarships provided by state and municipally supported institutions are usually not so large and not so numerous as those offered through privately contributed funds. On the other hand, the scholarships granted by individuals, clubs and industrial organizations have a greater number of conditions and requirements which must be met by the student. In addition to character and ability, there are often restrictions covering such matters as health, field of study, leadership, participation in student activities, and place of

residence. Many scholarships from private funds are awarded only to descendants of donors, to ministers' children, to children of railroad employees, to children of Masons and members of other groups, to descendants of Confederate soldiers, and to descendants of members of certain college graduating classes. Some scholarships and fellowships are designated exclusively for those bearing specific family names, professing certain religious faiths, or belonging to particular races or nationalities. There are even a few instances in which the applicant for a scholarship must be a newsboy or a consumer of tobacco, or must live along a certain railroad line. Scholarships are often awarded for proficiency in certain fields such as chemistry, music, athletics, dramatics, newspaper work, debating, and others.

The University of Chicago, Haverford College, Stanford University, Amherst College, Princeton University, Dartmouth College, and other large institutions have unusually liberal scholarship funds. Harvard University has established scholarships which make it possible for young men of outstanding ability and promise from a number of states in the West and South to receive awards sufficiently large to meet all their essential college needs. Successful applicants who maintain a high honor record may continue to hold the scholarships throughout their college courses. Yale University has scholarships which amount to enough to cover all college expenses and

which are awarded in every region of the United States.

Students who are not fortunate enough to obtain scholarships for the freshman year at college may look forward to receiving them later. More scholarships are open to sophomores, juniors, and seniors than to freshmen, because it is felt that character and scholastic excellence can be more accurately judged from actual college records than from the reports of so many different high schools. For example, the well-known Rhodes scholarships are awarded only to young men between 19 and 25 years of age who are above sophomore standing in college. The Rhodes scholarships are gifts established by Cecil J. Rhodes, the South African statesman, for use at Oxford University, England. Thirty-two Rhodes scholarships are given annually in the United States. They are worth about $2,000 per year, are good for two years with a possible third year, and are awarded on a competetive basis only, without regard to the financial need of the individual. Qualities of character, leadership, scholastic ability, and physical strength are considered. Further information may be secured from the American Secretary to the Rhodes Trustees, Swarthmore College, Swarthmore, Pennsylvania.

Competition for scholarships is keen, and young people who hope to win them should start early to work toward that end. Since most scholarships are based upon class standing and grades and upon rank in written examinations taken

just before graduation, the record made in high school is extremely important.

If you would like to secure a scholarship, select several colleges in which you may be interested. Obtain catalogs; study the information concerning available scholarships; and then write to the college treasurers or deans for application blanks and full instructions. Application blanks should be filled out neatly, accurately, and completely, for they are your only representatives before the scholarship boards. If possible, they should be submitted two or three weeks before the final date set by the college. In a great many cases, applications must be in before March first of the year in which one wishes the scholarship to begin. It is also necessary to have high school records sent and to submit references and other material to the scholarship board for consideration. Do not make just one application. The more scholarships you apply for, the better your chances of getting one. If you are offered a scholarship, consider it carefully before accepting it. Do not allow such an offer to flatter you into entering a school which you would not otherwise have considered. Sometimes a small scholarship in an expensive school is no help at all. It may cost less to go elsewhere without such help.

Student loan funds

Many young persons of limited means must borrow money for their college educations. Since the typical student is unable to furnish the collateral or security demanded by

banks, he must resort to borrowing from friends, relatives, or student loan funds.

Students who are granted loans by colleges or universities must be of outstanding character. They are generally asked to sign promissory notes, and are frequently required to have the endorsements of one or two reliable citizens. As an indication of their need, students who wish to borrow from college funds are often requested to give a careful accounting of their incomes and expenditures. It is generally felt that those who budget their resources are better risks than those who spend without keeping a record. Amounts of as much as $200 or more may be borrowed. Repayment is usually expected monthly in small amounts, with interest, either after graduation or upon becoming employed. Usually one must be already enrolled as a student before he is eligible for a loan from a college. In many instances, loans are available only to juniors and seniors. So if you must borrow, you will have to provide for yourself in some other way, at least until you become eligible for a loan.

In addition to the colleges and universities themselves, there are a number of agencies which make loans to college students. Borrowers from these sources are generally required to meet certain qualifications as to character, purpose, physical and mental ability, and need. Some of the agencies charge interest; others do not. A few of the funds

are restricted to men, women, state residents, religious denominations, certain races, or students taking particular courses.

There are twenty-one states in which college loan funds are available to state citizens. Various churches, parent-teacher associations, and alumni organizations administer loan funds to college students. In many communities, college loans are available through the local lodges, chapters, or clubs of the American Association of University Women, Business and Professional Women's Clubs, Elks Club, Kiwanis Club, Lions Club, Rotary Club, and other similar organizations.

The following are a few of the other sources from which loans may be obtained:

The Daughters of the American Revolution, National Chairman, D. A. R. Student Loan Fund, 122 Harrison St., Lynchburg, Virginia
The Educational Alliance Scholarship Loan Fund, 197 East Broadway, New York, N. Y.
The General Federation of Women's Clubs, 1734 N. Street NW, Washington, D. C.
The Knights Templar Educational Foundation, in care of the detail officer of your state.
National Patriotic Council, 202 Maryland Building, Washington, D. C.
The Supreme Chapter of P. E. O. Sisterhood, Mt. Pleasant, Iowa.
The Henry Strong Educational Foundation, in care of the Northern Trust Co., 50 South LaSalle Street, Chicago, Illinois.

Self-help plans

Obviously, there are not enough scholarships and loan funds to help all the young people who would like to go

to college but who do not have sufficient cash. However, there are other ways. Several institutions have self-help plans by which students may reduce their expenses to a comparatively small amount. In such schools the students themselves do a large part of the necessary work about the college including the building and repair work, the janitorial duties, and the clerical work. They prepare and serve the meals, raise the food supplies on the college farm, and perform all other work except the actual teaching. In this way costs are kept at the lowest possible figure. Not only are the students in self-help colleges assured of steady employment without having to depend upon odd jobs in the community, but they gain valuable work experience while they are learning.

Some of the best known schools which have such industrial plans are Berea College, Berea, Ky.; Park College, Parkville, Mo.; Blackburn College, Carlinville, Ill.; Berry College, Mount Berry, Ga.; Goddard College, Plainfield, Vt.; and Lincoln Memorial University, Harrogate, Tenn. Well-known colleges with self-help programs for Negroes are Tuskegee Institute, Tuskegee, Alabama, and Hampton Institute, Hampton, Virginia. In some of these schools enrollment is limited to a certain area. In some of them tuition is paid according to financial ability, although all students are required to do an equal amount of work. Detailed information concerning the various plans may be obtained from the catalogs of the schools.

Cooperative plans

A number of colleges have cooperative plans of education whereby students spend a period of several weeks in the classroom and then a period of several weeks on a practical job. Where this plan is used there is a definite agreement between the college and certain industrial plants. Usually two students hold the same job alternately, thus giving the employer continuous service. The students are supervised and allowed college credit in their work. They are enabled to observe factory organization, office administration, plant operations, labor conditions, and various processes in industry. In this way the theory in college is coordinated with the practice in industry. The plan is mainly used in the study of engineering and other technical subjects. Students do not usually begin practical employment until the second semester of college. The approximate time required for completion of a course by this method is five years. Although the object of the cooperative plan is education and not self-help, standard wages are earned while on a job and many students have been able in this way to defray a large part of their expenses.

Some of the institutions which use the cooperative plan are the College of Medical Evangelists (California), Georgia School of Technology, Armour Institute, (Illinois), Bradley Polytechnic Institute (Illinois), University of Louisville, (Kentucky), Massachusetts Institute of Technology,

Northeastern University (Massachusetts), Detroit Institute of Technology (Michigan), Wayne University (Michigan), General Motors Institute of Technology (Michigan), Lawrence Institute (Michigan), University of Detroit (Michigan), University of Minnesota, University of Omaha (Nebraska), Newark College of Engineering (New Jersey), New York University, North Carolina State College, Antioch College (Ohio), Cleveland College (Ohio), Fenn College (Ohio), University of Akron (Ohio), University of Cincinnati (Ohio), University of Toledo (Ohio), University of Tulsa (Oklahoma), Carnegie Institute of Technology (Pennsylvania), Drexel Institute (Pennsylvania), University of Pittsburgh (Pennsylvania), University of Tennessee, Southern Methodist University (Texas), and Marquette University (Wisconsin).

Part time jobs at college

If you have the ability and the determination to go to college, do not let lack of finances keep you from planning. There are numerous opportunities for young people who are willing to work. It is said that more than half of all college men and a large percentage of college women in the United States are wholly or partly self-supporting. No one should have a feeling of inferiority because it is necessary for him to earn the money for his education. In fact, there is much to be said for the student who works his way through college. He leaves college not only with an education, but also with an under-

standing and appreciation of the value of money, and with practical experience which often proves invaluable in a search for permanent employment. Employers have great respect for persons who can manage a job and college work at the same time, and they often show a marked preference for young people who have been self-supporting students. Young men and women who are not actually obliged to earn their way through college can help themselves vocationally and educationally by assuming at least a part of the responsibility. At the same time, they may also be able to lighten the burden of parents who are paying for a college education from funds which might otherwise be saved for their own retirement years.

On the other hand, going to college is in itself a full time job, and the added responsibility of earning expenses is too much for some students. It requires vitality, endurance, and good study habits to be able to attend classes several hours a day, do the necessary studying, and hold a job. The boy or girl who has had a difficult time with high school work will probably need all spare time in college for study. One who is not in excellent health may find the life of a self-supporting student too strenuous. Ambitious students who try to do too much sometimes become overworked, run-down, and nervous. Rather than risk illness and the possibility of having to drop out of school, it is better to take more than four years to complete a college course.

The majority of self-supporting students find that the first year is the hardest. It takes time to become adjusted to a new school. There are usually so many young people trying to find work in college towns that there are not enough jobs to go around. Most of the good jobs are already taken or spoken for by upper-classmen. For this reason, it is wise to have enough cash for the first year, or at least for the first semester, before entering college. To make this possible, it is a good plan to save money while in high school or to work a year or two after leaving high school. Any skill or experience gained by working on Saturdays or during high school vacations will increase your prospects of finding employment as a college freshman. If you plan to work your way through college, learn to do housework, to wait on tables, or to offer some other specific service before you leave home. Students who can type, cut stencils, take dictation, or who can serve as beauty operators, mechanics' helpers, assistants in the building trades, or in some other such capacity always have the advantage over those who must say merely that they are willing to "do just anything."

All kinds of jobs are held by college students. Many men work in restaurants, tend furnaces, clerk in stores, and work in filling stations. Board can usually be earned in dormitories, fraternities, sororities, boarding houses, and restaurants by working about one hour for each meal. Room rent

may be had in return for janitor service. The largest number of women are employed as waitresses, clerical workers, cooks, houseworkers, and nursemaids. Girls who want to do so can usually earn room and board in private homes by doing light cleaning, preparing and serving meals, washing dishes, and caring for children. Citizens who offer rooms to men or women students in return for domestic duties usually register such opportunities with the college.

Young people have worked their way through college by doing window dressing, library work, electrical work, watch repairing, photography, shoe repairing, barbering, dressmaking, factory work, delivering, washing and greasing cars, mimeographing, filing, billing, keeping books, addressing envelopes, selling insurance, selling in stores, working in dormitories, framing pictures, tutoring, reporting for newspapers, acting as companions and practical nurses, washing windows, caring for lawns, playing in bands or orchestras, singing in choirs, gardening, collecting bills, drafting, pressing clothes, shopping, and giving lessons in music, dancing, bridge, golf, dramatics, and painting. Large numbers of students have been able to hold more than one job at a time.

Young persons with initiative often make their own jobs by offering some unusual service. In some schools, groups of students organize and operate laundry agencies, flower agencies, newstands, suit-pressing agencies, sandwich

shops, and other college service agencies. Of course, the main object in working while at college is to earn money. But part-time jobs may also serve as tryouts in various vocations if they are closely connected with the field in which the student is interested. For example, science students may find work in laboratories; art students, in art studios; students of economics and business relations, in factories; and students of child psychology, in nursery schools.

College placement services, U. S. employment offices, and commercial employment agencies may help you to find work, but do not depend upon them altogether. Send letters of application to persons who are likely to have odd jobs to offer; advertise your services in the local newspaper; and apply in person to local citizens and business people. When applying for a job, remember to stress the work you can do, not your need of money. The employer is more interested in the service you can give him than he is in your desire for a college education.

If you plan to work, try to arrive at college at least a week before school opens. There are usually many opportunities for temporary employment on a campus at the opening of the year. If your college has a placement office, be sure to register there as soon as you arrive. The placement officer usually requires that an application blank be filled out. These blanks can be secured by writing to the employment office or to the dean of men or the dean of women, and should be filed

by the student before he arrives on the campus. The placement officer will then expect a personal interview with you when you reach college. Among other things, he considers a student's past work experience, his scholastic record, his need of funds, his personal appearance, his personality, the hours he will be free for employment, and the amount of time he can give to outside work. Naturally, he attempts to assign the most desirable jobs to the most deserving students.

If you must earn your way at college, go prepared to do some specific kind of work; lay your case before the student employment bureau; and then plan to use all your push and drive to locate and secure jobs for yourself. It can be done!

STUDENT ACTIVITIES:

I. Obtain copies of Working Your Way Through College, by Walter J. Greenleaf, Federal Security Agency, U. S. Office of Education, Washington, D. C., 1941 (Price, 20¢). Using the tables in the appendix of this pamphlet and similar information from college catalogs, estimate the annual cost of attending several colleges in which you are interested. Make a chart to include these items: yearly tuition, fees, board and room, books and supplies, clothes, laundry, recreation, church, clubs, transportation, and incidentals. Compare the costs of individual items and the total annual costs in the several colleges.

II. Secure copies of Scholarships and Fellowships Available at Institutions of Higher Education, Bulletin No. 10, by Ella B. Ratcliffe, U. S. Office of Education, Washington, D. C., 1936 (Price, 15¢). From the tables in Parts III, IV, V of this pamphlet, find the number of scholarships available in the colleges of your state and also the names of colleges which offer scholarships in the special field of your interest. Write to various colleges for information concerning the scholarships which they offer. Report your findings to the class.

III. Several students may interview members of various local organizations which grant loans to college students. They should find out the maximum amount of money which can be borrowed, the rate of interest charged, and the terms of payment. Results of these interviews should be reported to the class.

IV. Write for copies of the pamphlet, Student Loan Funds, by Walter J. Greenleaf, Federal Security Agency, U. S. Office of Education, Washington, D. C., 1938 (Free). Students who are interested may investigate the possibilities of obtaining loans from some of the sources mentioned in this bulletin.

V. Ask one or more of your acquaintances who have worked their way through college to tell you of any unusual methods of earning money and to state their advice to students who expect to work during college days. Be prepared to relate this information to the class.

VI. Discuss ways and means of saving money for college while still in high school. Also discuss skills that can be

acquired during high school days to help one get jobs in a college town.

VII. Study and report on some of the self-help colleges described in the pamphlet, College Projects for Aiding Students, by Fred J. Kelly, and Ella B. Ratcliffe, Bulletin No. 9, Office of Education, Washington, D. C., 1938 (Price, 10¢).

NOTES TO THE TEACHER:

I. The class secretary or specially appointed committees should be asked to write for the pamphlets suggested in the various activities on pages 163-164. The orders should be made far enough in advance and in sufficient quantities for all students to have access to the pamphlets during the study of this lesson. With your own initiative and the suggestions of the students, you will no doubt be able to devise many interesting ways of using these government bulletins.

II. You may be able to tell the class some inspiring true stories of students who have financed their college educations in unusual ways.

ADVANCE PREPARATION FOR THE NEXT CHAPTER:

If Student Activities I and II, p. 185, are to be used, the speakers should be invited in advance.

The teacher's own experience can be drawn upon for a great deal of helpful advice and for many interesting stories concerning college life and customs, if a little thought is given to it in advance.

BIBLIOGRAPHY

Hamrick, Randall, How to Make Good in College, Association Press, New York, 1941, Chaps. 10, 11.

Lovejoy, Clarence E., So You're Going to College, Simon and Schuster, Inc., New York, 1941, Parts I, III.

McConn, Max, Planning for College, Frederick A. Stokes Company, New York, 1937, Chap. 5.

Ryder, Violet, and Doust, H. P., Make Your Own Job, The H. W. Wilson Company, New York, 1933.

Seltz, David, 125 Ways to Make Money with Your Typewriter, The World Syndicate Publishing Company, New York, 1939.

Tunis, John R., Choosing a College, Harcourt, Brace and Company, New York, 1940, Chaps. 2, 3, 5.

CHAPTER VIII

BECOMING ESTABLISHED AT COLLEGE

CHAPTER VIII

BECOMING ESTABLISHED AT COLLEGE

Making preparations for college

Those of you are going to college have many things to do and think about before you leave high school and just after you arrive at college.

It is wise to apply for admission to college early in your last semester of high school. Some colleges admit only a limited number of freshmen and if your application is not in soon enough, you may not be allowed to enter until the following semester. Request that your principal forward a transcript of your credits and any other documents or character references that may be required.

A thorough study of the catalog and other literature sent out by the school you plan to attend will give you a wealth of information concerning the rules, regulations, customs, and the things you will need to take with you. You may also be able to get some helpful suggestions from acquaintances who have attended the same school.

Buying your clothes

Most college freshmen, especially the girls, are concerned about luggage and clothes. Those who dress inappropriately may be noticed, but not admired. Some young people are made extremely unhappy and uncomfortable simply by the feeling that their clothes are not quite right. Students dress dif-

ferently on different campuses, in different types of schools, and in different sections of the country. For this reason, you can not always rely upon the advice of local salesmen and the advertisements and lists given out by department stores. A safe rule is to avoid extremes in dress. Girls frequently overdress, while boys often become slovenly and go to class too long without having their shoes polished and their clothes cleaned and pressed. A happy medium is to be desired. As you become familiar with college life and become acquainted with new students, your social life will change, and your needs may increase. So instead of overstocking with clothes which may be all wrong on your particular campus, it is advisable to purchase only the most necessary articles such as street shoes, skirts and sweaters, a dinner dress or two, and perhaps a formal; and wait to buy additional clothes after arriving at school and seeing what others wear. Or instead of trying to anticipate your needs for an entire year at college, take only the essentials at first, and add to your wardrobe when you go home for the Christmas holidays. Simple sport clothes are always appropriate for the classroom and comfortable walking shoes are essential on any campus. It is much better to have a few well tailored clothes of good material and design than many cheap ones. Good clothes make one look and feel better. In the long run, they are economical because they last longer and require less pressing and repairing. Plan a basic color

scheme; buy a few plain, well chosen clothes which match or harmonize; and you will feel well dressed at college.

When packing your baggage, be sure to include your high school books. You will often find it helpful to refer to them in connection with new material presented at college. Also take any good reference books which you may have. A reading lamp and a book shelf are essentials which may not be found in your room at college. If you own and operate a typewriter, you will find it an invaluable part of your equipment. Take with you any of the other study aids which you have found useful during high school days. An efficient student must have the necessary tools for his work.

Choosing living quarters

Boys who live in dormitories are sometimes required to furnish their towels, bed linens, and blankets. In addition to linens and bedding, girls are frequently asked to supply the curtains, rugs, bedspreads, and dresser scarfs for their rooms. When this is the case, girls sometimes request to have their roommates assigned in advance so that they can agree on color schemes and arrange to share equally in the expense of furnishing their rooms.

The requirements relative to housing vary widely with different colleges. Some schools require that freshmen live in dormitories while others have no restrictions whatever. Your college catalog will give you this information. Usually

the student has several choices in the matter of living quarters. Fraternities and sororities frequently provide the most attractive and comfortable places to live, although they are also the most expensive. The majority of students, however, live in dormitories, cooperative clubs and private homes. Many of the universities now provide very attractive dormitories with nicely furnished social rooms.

Most of the larger colleges have cooperative houses for both boys and girls. These homes are run according to the regulations of the school and under the direct supervision of a house mother. The students share equally in the work and the cost of operation, and in this way often cut the cost of board and room from one-third to one-half. In addition to the lower cost of living, the training in housekeeping, cooking, and home management is invaluable to girls. Applications to cooperative clubs must be made early, as there is usually a long waiting list.

It is advisable to try to obtain your room in advance, if you plan to live in a dormitory or in a private home. By making arrangements before the semester begins, you may be able to get a room with two windows instead of one, a room on the most convenient floor or the most desirable side of the building, or one with some other feature which is important to you. Having a definite place to go when you arrive at college makes the effort worth the while. On the other hand, if you have not had an opportunity to make a previous visit to the campus, you

may want to wait and look the situation over for yourself before reserving a room.

In fraternities, sororities, and dormitories, roommates are usually assigned to you the first year, and you have little or no voice in the selection of the person with whom you are to live, sleep, and study. Sometimes two, three, or more other persons may have to share your room and study with you. Most persons can concentrate better when alone. If you are of a studious nature, it is very important that you have a roommate of the same type. In order to get the most out of college, it may be much better for you to room by yourself, even though it means finding a smaller and less attractive room at a higher cost.

Pledging a fraternity or sorority

During "rush week", soon after the opening of the semester, some students are invited to teas, dinners, banquets, and other social functions at the various fraternities and sororities so that they may see the houses and so that the members may meet them as prospective pledges. It is quite possible for you to be invited to a social function at a different house each afternoon or evening for a week. You may accept all the invitations. Your being invited a second time will depend upon the first impression you make. After "rush week", you may or may not be invited to join the group of your preference, or any group at all. This is not such a ca-

lamity as it at first appears. Many young men and women are never rushed. Some of them are offered bids to fraternities only after being on the campus for two or three years.

A "bid" to a fraternity or a sorority is an invitation to join. It is better not to talk too much about your intention of joining one of these organizations. You may not be asked. If you are invited, however, give the matter serious thought and consideration. Consult your parents and ask some college official or professor for a frank opinion of the particular fraternity. In the meantime, you will have an opportunity to become acquainted with the members and to associate with them on their home ground when they are not displaying their best pledge manners. If the members of the fraternity have extended you a bid in the first place, they will be glad to hold it open for a few days until you get an answer from home or make up your own mind. Fraternities and sororities must have new members in order to perpetuate themselves. They are just as anxious to get good students with pleasing personalities who can pay their house bills and initiation fees as you may be to affiliate with some good social group.

When boys join a fraternity or girls join a sorority, they are first "pledged." This means that they must serve a probationary period during which time they learn about the fraternity, perform various tasks around the house, learn to live harmoniously with others, acquire some of the social

graces, and develop a sense of poise at social functions and a feeling of ease in meeting and introducing people. To be initiated into a fraternity as active members, the pledges must make satisfactory grades. The college determines the minimum average grade required. In an effort to emphasize scholarship, many fraternities set up standards of their own which are higher than the university requirements. This is an indication that the members of that fraternity believe in scholarship and that they want good students in their organization.

Social fraternities and sororities are simply social clubs. Prospective members are asked to join on the basis of their financial ability to meet their share of the expenses, the social status of their families, their ability to make favorable impressions, and their prominence in student activities or their apparent leadership ability. Many persons of sterling character and outstanding scholastic ability are overlooked by these organizations. For this reason, no one should be too much hurt or disappointed if he does not happen to be chosen for membership. There was a time when a student who was not affiliated with a fraternity had the feeling that he was "out" of things. This is no longer true. With the organization of independent clubs and other nonfraternal groups, the social life of those who do not belong to fraternities is well provided for.

There are advantages in belonging to a college fraternity. If you can afford the additional expense, and if you like being with people, you will probably enjoy the very pleasant manner of life and the social prestige connected with membership in such an organization. It is generally more homelike and comfortable in a chapter house than in a boarding house or a dormitory. In most instances, living conditions are good; and in some cases, luxurious. The food, too, is usually very good. Of course, it must be remembered that you will have to pay for what you get. Fraternities are like homes. Some of them are operated on the plane of a middle class home and some of them resemble the homes of the elite.

The fraternal organizations usually control the social and political life of the campus. This is by reason of the fact that fraternities and sororities often combine and elect the students whom they want in office. Then all the important chairmanships are given to those who have supported the winning candidates. If some independent becomes well known on the campus, the fraternities try to pledge him. Fraternity members who have special talents or abilities are primed and urged to forge to the front in athletics, music, dramatics, and many other extracurricular activities. This tends to keep most of the campus leaders in the organized social groups.

Good fraternities exert a fine influence on their freshmen members by supervising their study and holding them to a scholastic standard. They also help shy, reserved young persons to feel at ease in company and to acquire a certain social "smoothness."

Another advantage of membership in a fraternity or a sorority is the lasting friendships which it insures and the loyal support and help which come from these friends in time of trouble or distress. Membership in a national fraternity with chapters in different sections of the country offers an opportunity for making social contacts when away from home and after college days.

It must also be pointed out that there are certain factors in fraternity life which would be decided disadvantages to some persons. The cost of living in a fraternity or sorority house is much higher than the possible minimum cost of living at college. House bills amount to about $50 per month. Initiation fees range from $15 to $200. In many cases students have additional personal and incidental expenses because of the social functions which fraternities have. In some cases it may be better to be on the outside than to be constantly embarrassed and unhappy because one does not have the necessary funds to pay one's own way. The advantages of fraternity life may not be worth the financial strain. However, many fraternity men work their way through school or,

at least, work enough to pay the additional expense of living in a fraternity. Some fraternity groups frown upon having their members work while others approve and encourage it. If you are interested in working your way through school, find out the attitude of the chapter on this point.

There are in existence many good fraternities whose founders set up noble Christian principles and ideals by which its members were expected to live. But their good intentions are not always observed by the particular members during a particular school term. Try to find out something about the group with whom you expect to live. The ideals and habits of the members have a great deal to do with the kind of chapter the fraternity will have on a campus during any semester.

Before accepting a bid to join a fraternity or sorority, carefully consider the following points:

1. Does the fraternity have a good reputation?
2. What does the faculty think of it?
3. Is it a national fraternity?
4. How many chapters does it have?
5. Are the chapters distributed throughout the country or are they in one general section?
6. Is there a strong national headquarters?
7. What are the financial assets of the national organization?
8. What are the financial assets of the local chapter?
9. Is there a full time executive secretary to take care of the affairs of the fraternity?

10. Does the fraternity publish a national magazine?

11. Does the local chapter own its house?

12. Is there a loan on the house? If so, what is the amount?

13. What provision is there to handle such a loan?

14. What are the principles and ideals upon which the fraternity is founded?

15. Do the members in the chapter live up to these principles?

16. What type of men make up the chapter?

17. Are they a group who drink and gamble?

18. Are they a group of men who are good fellows with a serious purpose in life, or are they snobbish, cocky or fast?

19. Do you like the boys (or the girls) in the chapter to such an extent that you would like to live with them and be one of them?

20. Is there any unnecessary hazing or paddling?

21. What is the scholastic and social standing of the chapter on the campus?

22. What provision is made for helping freshmen make a success of college both scholastically and socially?

23. What is the pledge fee?

24. How much are the pledge dues?

25. What is the initiation fee?

26. How much are the active dues?

27. Can you afford to spend this amount of money?

28. What are the rules and regulations under which a pledge and an active must live?

29. Will you be willing to abide by these rules and regulations?

30. Are the meals and rooms conducive to good health?

You may find a great deal of helpful information concerning the history, organization, and chapters of the national fraternities by obtaining from the library a copy of Baird's Manual.*

Getting off to a good start

Too many young people go to college with the intention of making it a four-year holiday. For the first time in their lives they are free from the influence and discipline of home and parents and they begin at once to take advantage by squandering their time, spending their allowances recklessly, and asserting their independence in many ways. Needless to say, this never pays! Many freshmen have a brief fling on the campus only to be sent home shamefaced and disillusioned at the end of the semester when they have failed to make the required grades. In college you will be treated as men and women and expected to act as such. Your new freedom will not be license to do things which will harm the school, others, or yourself.

One of the biggest mistakes a college freshman can make is to be a "show off" and to try to act smart. Another is to disregard all the rules and regulations of the school and to

---

*Baird, W. R., Manual of American College Fraternities, George Banta Publishing Co., Menasha, Wisconsin, 1940.

rebel at every ideal for which the college stands. Young people who do these things only make themselves obnoxious, although they often fail to realize it until they have become quite unpopular with both students and teachers. Take the cue for your conduct from successful college seniors. They may not be perfect models, but at least they have survived three years on the campus.

It is important to make the right friends at college. The code of living of some of the students may not be on the same plane as yours. Try to differentiate between the good and the bad, the right and the wrong. Allow yourself to be influenced only by strong characters and pass the weak ones by. Associate with those students who will help you, not hurt you. Avoid making friends of loafers who will try to entice you away from your studies. Instead, cultivate those young people who are intellectually stimulating.

College is a good place to learn to manage your money wisely. If you are self-supporting, you will not need to be reminded to budget your funds. But if you have a fairly liberal allowance from home, you may find that it is easy to spend it at the beginning of the month and then have to borrow, write home for additional cash, or live very economically toward the end of the month. To a great many freshmen a first monthly allowance looks so large that they immediately treat themselves to several dances, shows, and expensive dinners,

only to find themselves in a state of financial embarrassment two weeks later. To avoid this, set aside the necessary amount for your room, board, laundry, haircuts, and other regular expenses. Then distribute evenly over the four weeks the amount you have left for personal spending.

Time is just as easily frittered away as is money. Parents and teachers who warn you about this are not merely lecturing. They are trying to save you the hurt and disgrace of flunking and being dismissed from college. They know that colleges do weed out the loafers and they hope that you will be spared this fate. So try to work out a schedule which will allow ample time for studying--your main business at college.

Let your first campus excursion include the library. Find out how to use its services and plan to spend a great deal of your time there. Do not sign up for too many extracurricular activities. You can not study all the time, and it will be good for you to go out for one activity, to attend college functions, and to meet people. But remember that college requires a great deal more work than high school and it will be necessary to allow many more hours for study than you now realize. Try to be sensible about your social life also. It is important, but secondary to your studies. To have no dates at all can cause one to become narrow and to feel ill at ease in mixed company. But too many dates and good times soon begin to tell on one's grades.

Students often make an unwise distribution of their time by trying to do too much part-time work to the detriment of their studies. Many students enroll in college not knowing where they are going to get the money to pay the next month's board bill. A situation of this kind only adds to the difficulty of becoming adjusted to college life. It is too much to have to worry about staying in school and to concentrate on studies at the same time. Unless you are an exceptional student and have a great capacity for work, it will be to your advantage to go to college with enough money to carry you through the first semester, or the first year, if possible.

Some educators who have made a study of the difficulties of college freshmen believe that the following, named in the order of their significance, are the problems which most frequently cause trouble:*

1. Difficulty in working out and observing a study schedule.
2. Failure to adjust promptly to classroom methods which differ from those previously used (lectures, note taking, etc.)
3. Devoting too much time and energy to out-of-school activities (athletics, parties, etc.)
4. Living away from home.
5. Living with a group of men or women (in clubs, fraternity houses, dormitories, etc.)

---

*A study by Ben D. Wood and W. S. Learned, summarized in: Koode, J. O., Orienting the Student in College, Contributions to Education, No. 415, Teachers College, Columbia University, New York, 1930, pp. 24-28.

6. Doing the amount of work expected by college instructors, which often is far greater than the amount expected in high schools.

7. Inability to make effective use of library facilities.

8. The distracting influence of outside work, when students must earn part or all of their college expenses.

9. Discouragement.

10. Loneliness.

Many young people leave home for the first time when they go to college. This is a big step and a turning point in their lives. When you go away to school, the guiding hand of your father and mother will not be there at your beck and call. College may cause you to become confused. You will be taught things which may not seem consistent with the things you were taught at home. But if you will cling to your religious ties and to the fundamental beliefs you learned as a child, you will later find that your faith will only be strengthened by college training. Keep up your interest in religion and attend church frequently while you are away from home. Do not risk losing your faith and becoming disillusioned. Studies show that it is while they are in college that a large percentage of young people grow away from the church and break their religious ties.

STUDENT ACTIVITIES:

I. Invite one or more members of your high school faculty to speak to the class from their own experience concerning various phases of college life. At the conclusion of their talks they will probably be willing to allow members of the class to ask any questions which may occur to them regarding living quarters, part time work, possible economies in college, the fraternity question, student activities, and other matters of general interest.

II. Invite your high school principal or dean to visit the class at this time and to discuss the information which high schools are asked to furnish to colleges and universities in addition to transcripts of credits. This will probably include such things as a description of character and personality, a record of extracurricular activities, a health record, scores on certain objective tests, and other such data. Also ask for a discussion of follow-up reports which colleges send to principals concerning the records being made by their former high school students. Perhaps you may learn in which of the colleges the graduates of your school appear to be most successful and in which ones they are least successful.

III. Using the data collected for Activity I, page 163 of Chapter VII, concerning the cost of attending a particular college, make a budget of college expenditures for one month. Assuming that your parents sent you a monthly allowance of $60, estimate the amount to be paid for board, room, laundry, cleaning and pressing, supplies, clothes, clubs, personal expenses, and entertainment. If there is a balance, indicate how it would probably be spent.

IV. Discuss the advantages and the disadvantages of membership in a fraternity or sorority.

ADVANCE PREPARATION FOR THE NEXT CHAPTER:

Student Activities II and V, p. 196, require advance assignments.

The pamphlets mentioned in Student Activities III, IV, and VI, pp. 196-197, should be ordered in time to be on hand for the next lesson.

BIBLIOGRAPHY

Alsop, Gulielma Fell, and McBride, Mary Frances, She's Off to College, The Vanguard Press, New York, 1940.

Eldridge, Elizabeth, CC-ELDiquette, E. P. Dutton and Company, New York, 1936.

*"From High School to College", Vol. XVI, No. 2, Research Bulletin of the National Education Association, 1201 Sixteenth Street, N. W., Washington, D. C., March 1938. (Price, 25¢).

Hamrick, Randall, How to Make Good in College, Association Press, New York, 1941.

Lloyd-Jones, Esther and Fedder, Ruth, Coming of Age, McGraw-Hill Book Company, New York, 1941, Chap. 7.

Lovejoy, Clarence E., So You're Going to College, Simon and Schuster, Inc., New York, 1940.

McCaul, Margaret E., Guidance for College Students, International Textbook Company, Scranton, Pennsylvania, 1939, Chaps. 1-3.

McConn, Max, Planning for College, Frederick A. Stokes Company, New York, 1937, Chaps. 7-8.

Stratton, Dorothy C., and Schleman, Helen B., Your Best Foot Forward, McGraw-Hill Book Company, New York, 1940, pp. 3-9.

*For the teacher

CHAPTER IX

STUDYING BY CORRESPONDENCE

CHAPTER IX

STUDYING BY CORRESPONDENCE

Who should take correspondence courses?

Every year over three quarters of a million persons enroll in home study courses. In fact, it is estimated that there are approximately as many students pursuing their education by mail as there are students enrolled in resident colleges, universities and professional schools combined.

Several groups of persons find it necessary to secure their training by correspondence. Among them are men and women who were deprived of the opportunity of going to school when young; those who are ambitious but cannot stop working to go to school; those who need technical or specific training in order to advance in their work; those who want to prepare to enter a different trade or profession; pupils who want to study subjects not taught in their local schools; and persons who are isolated in rural districts, mountainous regions, or on ranches where regular schools are not maintained.

When a person enrolls in a correspondence school, he receives textbooks, assignments, and lists of questions from the school. Sometimes supplementary books and mimeographed material are sent to take the place of a library. The assignments usually consist of directions for study and suggestions for reading, preparing reports, or solving problems. The stu-

dent follows the instructions and mails his completed lessons to the school. The instructor then looks over the lessons, corrects them, and returns them with comments to the student.

There are several advantages to be found in study by mail. It is usually less expensive than attending regular school. Persons who have full time jobs can study at their own convenience. Students are not rushed forward or held back by other members of a class, but can progress at their own rate of speed. In a correspondence course, each student must prepare every lesson and thus, he covers the work more thoroughly than if he were reciting with a class. Subjects which are not taught in local schools may be taken by correspondence. By means of home study work, students may earn credits necessary for the completion of an elementary school, high school, or college course at a time when it might otherwise be impossible to do so. Those who find it necessary to work for a while before entering college may save time by earning a few college credits by correspondence.

The fact that this type of study is not such a boon to all students, however, is proved by the extremely large percentage who drop out before completing the courses. It has been found that only 6 percent of those who enroll in private correspondence schools finish their courses, and only about 68 percent of those who take university correspondence courses

complete them. Correspondence study is hard work and takes a great deal of stick-to-itiveness. Students who must be prodded, those who require constant supervision, those who need the stimulation of working with others, and those who have the habit of putting things off may not succeed in home study work. Certain correspondence courses are difficult for those who do not read well. Persons who cannot express themselves clearly in writing are at a serious disadvantage in some courses. The reason some students do not succeed in correspondence work is that they try to study subjects for which they have no aptitude or for which they have not had the necessary background.

What subjects are taught by correspondence?

Correspondence courses are given on elementary school, high school, and college levels. They cover a wide range of avocational and cultural subjects. By far the greatest number of courses taught by mail, however, are in the vocational fields. The subjects offered range from accountancy to woolen manufacturing. Certain of these subjects are harder to study by correspondence than others. For example, such skills as drawing, painting, dancing, voice culture, or instrumental music are difficult to master unless an instructor is on hand to criticize and to demonstrate.

In some small school systems there is what is known as a correspondence study department. A double class period

is set aside each day during which time the students prepare their lessons under the supervision of a high school teacher. The lessons are then mailed to the home office of the correspondence school for correction and return. By this system, students in schools which have limited offerings have an opportunity to choose from a larger number of courses. Other advantages of this type of training lie in the fact that each student can progress as rapidly as possible and that the cost to the local school system is lower than that of ordinary high school subjects.

Somewhat the same system has been used by the Y.M.C.A. and the evening high schools in the larger cities. Students are enrolled with an approved correspondence school for such subjects as stenotypy, shorthand, advertising, drafting, interior decoration, accounting, blue print reading, journalism, and many others. Thus, a group of young people, each pursuing a different course meet and study together under the supervision of an adviser.

Many corporations have contracts with home study schools for the training of their employees. Some employers pay a part or all of the tuition fees for those who enroll for the courses at their suggestion. The courses are especially prepared for persons engaged in the sale of gasoline, automobiles, life insurance, shoes, or electrical appliances, in department and chain store management, in laundry, printing,

or service station jobs, and in other fields of work.

How can one select a good correspondence school?

Two types of institutions offer instruction by correspondence. One is the college or university which has a correspondence department in which students are enrolled to study by mail some of the same courses taught on the campus. The same textbooks and study outlines are used; the same faculty members read and correct the papers; and in many cases the same examinations are given. There are definite entrance requirements for the college correspondence courses as well as for regular college work. Some university correspondence courses are open to high school students, although there is usually a minimum age limit. Many universities allow from one-fourth to one-half of their requirements for graduation to be met through correspondence courses.

The other type of institution offering instruction by mail is the private correspondence school. There are several hundred of these schools which are organized for profit. Some are old, well established institutions, while others are of the fly-by-night type. Some offer a great variety of courses; others offer only one course such as cartooning, photography, or salesmanship. Some make definite requirements as to age, aptitude, and previous training, while others enroll anyone regardless of his ability to do the work. The better private schools give examinations supervised by reputable officials;

the inferior ones give no examinations at all.

Fraudulent schools

To many persons study by correspondence is the solution to the problem of securing necessary training at a convenient time and place. But those who would profit by a course from a reliable school are sometimes taken in by the false advertising of fraudulent schools. Glaring headlines, pictures which convey false impressions, guarantees of good positions with high salaries, and extravagant claims to teach dancing, music or some other subject in a few easy lessons are some of the methods used in such advertising. The disreputable schools often make false claims about their placement services and about refunding money if the student does not obtain a job after finishing the course. In order to be misleading, a few private correspondence schools call themselves "colleges" or "universities." Some of these schools are owned and operated by one person, sometimes as a side line to some other business. Frequently one or two persons with no particular training may constitute the entire faculty. Inferior schools often send out study outlines or notes which are entirely too difficult for the student or which are made up of out-of-date material. It is a common practice of second-rate private schools to correct students' papers very inadequately and to mark them too liberally. By giving high marks, they hope to keep the students satisfied and thus to continue to collect their tuition fees.

The question of how to select a good correspondence school then arises. Courses in the field of liberal arts and sciences are usually offered by state universities. The person who feels that he can profit by doing correspondence work should first investigate this possibility. If the type of course which he desires is not given by any of the universities, he should then make comparisons between the private schools which give the particular course.

It is well to look for a school which has been in operation for several years; which has adequate equipment; which uses up-to-date textbooks; and which can supply satisfactory references concerning the character of the school. Be suspicious of private correspondence schools which accept anyone for admission without questions or restrictions; those which make impossible promises, extravagant guarantees, and offers of free scholarships and reduced tuition rates; and those which do not provide for refunds of tuition if the course is only partially completed. Many dishonest schools obligate their students to pay the tuition in full whether the course is completed or not, and then furnish lessons which are so difficult that only a few can master them. Others offer good instruction, but accept students whose backgrounds are such that they cannot hope to understand the work. Some correspondence schools are much more interested in collecting tuition fees than in helping students to complete their courses.

For this reason, you should check carefully on all oral claims made by school representatives, and have any specific promises put in writing.

Before seriously considering enrolling with a correspondence school, obtain in writing a statement concerning the percentage of students who have actually completed the courses for which they enrolled and also a statement as to the proportion of graduates who have obtained jobs, the kind of jobs, the average salaries, and the length of time they have held the jobs. Do not sign any contract or agreement without reading it through carefully. If you do not thoroughly understand every point in the agreement, ask some competent person to explain it to you.

As a further check, consult the Better Business Bureau of the city in which the correspondence school is located. Also write to the National Home Study Council, 839 17th Street, N. W., Washington, D. C., which was organized to promote fair practices among correspondence schools. Out of about 480 private correspondence schools in existence, only 45 have been admitted to membership in the Council on the basis of meeting certain standards as to lesson materials, qualifications of instructors, equipment, enrollments, and collections. The National Home Study Council will send free of charge to any person requesting it a list of approved correspondence

schools and information concerning the particular subjects taught in them. It will also investigate and see that fitting action is taken against any school reported to be guilty of fraudulent or unethical practices.

What are extension courses?

As was mentioned earlier in the chapter, young people who for various reasons cannot go to college many complete a part of their training at home by means of correspondence courses. There is still another way by which this may be accomplished. Many universities provide extension classes which are evening classes conducted by their own professors in towns within a radius of about fifty to seventy-five miles from the university. By means of extension classes people who have had to postpone college, those who work during the day, and those who simply want to improve themselves may have the benefits of college brought to them. The students receive the same instruction and the same credit as if the courses were given on the university campus. It is less expensive to take college work by extension than in residence. Of course, only a certain proportion of the credits necessary for graduation may be earned in this way.

By sending ten cents in coin to the Office of the Secretary, National University Extension Association, Bloomington, Indiana, you may obtain a copy of the Guide to Correspondence Study which lists the colleges of the United States

which offer extension courses and also those which offer correspondence courses.

Never try to justify a lack of education by saying that you have not had an opportunity to go to school. Training of many kinds is now available to those who are willing to take advantage of it. It is no longer necessary for you to leave home in order to continue your education.

STUDENT ACTIVITIES:

I. Discuss the personal qualities which are necessary in order for a person to do satisfactory work by correspondence.

II. The class secretary or a committee chairman may be asked to write to the Division of University Extension at your State University asking whether or not the university offers correspondence courses and requesting a list of subjects taught, the requirements for admission, and the cost of tuition. It is important also to know about the time limits within which courses must be completed, and whether or not the correspondence courses count toward a college degree.

III. Write to the National Home Study Council, 839 Seventeenth Street, Washington, D. C., for a copy of the Home Study Blue Book. Consult this book for the names of approved private schools which offer any courses in which members of the class may be interested. If there is sufficient demand or sufficient interest, the secretary of the class or special committees may write to some of the schools listed in the Blue Book for literature. To avoid having representatives call on students as prospects, it may be better to have the literature mailed in the name of the school. Using this literature, make comparisons as to the scholastic background required for enrollment, the time limit for the completion of the courses, the tuition fees, and provisions for refunds if the courses are not completed.

IV. The Federal Trade Commission, Washington, D. C. has formulated a set of trade practices for approved private home study schools which must be adhered to in the advertising and selling of correspondence courses. These rules are found in the Manual of Standards for Private Home Study Schools which is sent free upon request by the National Home Study Council, 839 Seventeenth Street, Washington, D. C. Obtain a copy of this pamphlet and study the rules which now make correspondence schools less risky than they formerly were.

V. Make a collection of correspondence school advertisements from newspapers and magazines. Study these advertisements with a view to determining whether they adhere to the rules of the Federal Trade Commission. According to statements in reliable pamphlets and books on occupations, do the claims of the advertisements as to opportunities for employment and salaries of graduates seem reasonable?

VI. Write to the Office of the Secretary, National University Extension Association, Bloomington, Indiana, for a copy of the Guide to Correspondence Study. From this pamphlet obtain the names of the universities nearest your home which offer extension courses. Write to these schools for information concerning their courses and the names of the towns in which they are given.

From this same pamphlet note the universities which offer courses by correspondence. If any members of the class are interested in earning credits in this way, they should write to some of the universities for details.

ADVANCE PREPARATION FOR THE NEXT CHAPTER:

Advance assignments are necessary for Student Activities I, II, III, VI, and VIII, pp. 225-226.

For use in Activity V, p. 225, it will be helpful to have on hand a supply of newspapers and trade magazines which carry advertisements of private trade schools.

BIBLIOGRAPHY

Bennett, Margaret E., and Hand, Harold C., Beyond High School, McGraw-Hill Book Co., New York, 1938, Chaps. 5-6.

Fisher, Dorothy Canfield, Why Stop Learning?, Harcourt, Brace and Company, New York, 1927, pp. 21-43, 164-179.

Tunis, John R., Choosing a College, Harcourt, Brace and Company, New York, 1940, Chaps. 2, 3, 5, and pp. 173-240.

CHAPTER X

VOCATIONAL TRAINING

CHAPTER X

VOCATIONAL TRAINING

Types of vocational schools

A great deal is said to high school students about college. As a result, many young people feel that only by going to college can they really obtain an adequate education. Of course, this is not true. Statistics show that only about one person out of every seven who finish high school ever graduates from college. The other six find employment in fields of work which do not require the completion of a regular four-year college course. A part of this number get some practical training which fits them for specific vocations. The others usually drift from one unskilled job to another.

Unless you attend a technical or trade high school, the chances are that upon graduation you will not be able to get a job except on the unskilled level. Industries do not want untrained and inexperienced workers. Most occupations now require a knowledge of technical facts which cannot easily be learned on the job. Consequently, there has been a great increase in the vocational training given in the schools throughout the country.

Preparation for various occupations may be obtained in free public schools, in private trade schools, in schools supported by industry; and in those supported by grants from the Federal Government. There are vocational schools which

have day classes, evening classes, and part-time classes. There are schools which charge tuition, schools which charge none, and schools which pay students while they are learning. Those who plan to prepare for work in the skilled trades should carefully consider all types of vocational schools.

In the public schools of small towns students are usually trained only in the general industrial requirements rather than in skills for specific trades. In the larger cities there are hundreds of public schools which are well-equipped to give training in printing, radio mechanics, drafting, machine shop practice, the garment trades, the manufacturing, building, and mechanical trades, and many others. The kinds of training offered depend upon the needs of the community. For instance, a school located in the center of the garment industry may give special courses in tailoring, while a school in a furniture manufacturing district may train for work in cabinetmaking.

According to the Smith-Hughes Act, the Federal Government encourages the establishment of trade schools by paying a part of the teachers' salaries. This is done on condition that the schools comply with Federal regulations concerning the type of courses offered and that they employ teachers who have had practical experience in the occupation about which they are teaching. A student spends one-half of each day in a shop learning a particular trade. One-fourth

of the day is given to the study of "related subjects", that is, to the mathematics, science, mechanical drawing, and other subjects especially needed in the trade. The other one-fourth of the student's time is given to English, history, and other general educational subjects. Thus, the training in the Smith-Hughes vocational schools meets the requirements for high school graduation and also provides vocational training.

In addition to the regular high schools which give vocational training, many large cities have public trade schools which offer no academic subjects but specialize in training students for particular trades. An elementary school diploma is the usual entrance requirement. Sometimes a minimum age of sixteen, eighteen, or nineteen is also required. The courses run from six months to four years, although they are generally about eighteen months in length. Most of these schools are free to local residents, but some of them charge a low rate of tuition. An attempt is made to give the instruction under actual working conditions and to employ the same methods as those used in the trades. Upon completion of the courses, the graduates are usually placed in positions by the school. Many public trade schools have connections with local labor unions which help to determine the standard of work done and to fix the beginning salaries of the graduates. If there are no such schools in your community, write to the school su-

perintendents in some of the larger cities in your section for information concerning the trade schools in their cities. (Names of city school officials may be obtained from Educational Directory, Part II, City School Officers, Federal Security Agency, U. S. Office of Education, Washington, D. C. (Price, 10¢).

There are many vocational training schools which are privately operated. One type of private school is that conducted by individual industries. Because all factories have their special methods of procedure, most of them prefer to train their own employees. Companies which operate training programs make rather strict requirements of their prospective employees because they do not want to waste time and money in training persons who will not eventually become satisfactory workers. Wages are paid during the training period, and when the students are adequately prepared, they are given regular positions with the company. One of the chief advantages of this type of schooling is that a job is assured for those who complete it. A possible disadvantage is that the training is somewhat narrow, since the workers are usually taught to perform only one or two definite operations in the particular work which they are to do. Prospective students must make formal application and must usually take tests to determine their aptitude for the work. If you are interested in some particular industry, write to several large companies

to determine whether or not they have training programs and the requirements for admission.

Every year thousands of young people enroll in private trade schools most of which are operated for profit. Here they may study stenography, welding, drafting, barbering, beauty culture, automobile and airplane mechanics, cabinet-making, electricity, plumbing, pattern making, machine shop work, sheet metal work, millinery, shoe repairing, air-conditioning, embalming, radio operating and servicing, and many other trades.

Gyp schools

Most private trade schools are reliable institutions, but some of them are frauds. You should beware, therefore, of magazine advertisements, catalogs, and bulletins of schools which make extravagant claims concerning their buildings, equipment, and instruction and exaggerated statements about the number of persons who, with the proper training, could be placed immediately in lucrative positions. Do not rely too much upon any unusual promises made by the representatives of these schools. Salesmen sometimes try to rush young people into signing contracts or paying tuition in advance by offering what they call special bargain rates or scholarships or by flattering their prospects into feeling that they have been recommended to the school as outstanding students.

Some disreputable institutions guarantee jobs to all

who finish the course. Then they make the last lessons so difficult that very few students ever succeed in completing them. Others promise to get jobs for their students only so long as they are still enrolled in the school. Those who finish the course are often kept on indefinitely and charged additional tuition by the week or the month with the hope that the school will eventually place them in good positions. There have been cases in which students who had been guaranteed jobs were "hired" by fake employers and discharged when the school was ready to give the "jobs" to other graduates.

The Federal Trade Commission has now put a stop to the false advertising of certain vocational schools which conveyed the impression that they prepared students for civil service examinations and that they had inside connections for securing government positions for them. Although these schools are no longer allowed to use pictures of Uncle Sam, the National Capitol, and other symbols which would give false impressions, some of their representatives imply that they are approved by the government and that those who take the courses will be given special consideration when trying to get civil service jobs. Salesmen who make such promises should be asked to put them in writing and sign them.

Selection of a good school

To be sure, there are many good private trade schools which are well equipped and prepared to give adequate instruction. But before you enroll in any school, you should investi-

gate it. Be sure that it will give you enough hours of training to enable you to master the subject. It should have teachers who not only know the subject but also know how to teach it and who give their students individual instruction and explanations. The school should provide modern machinery and equipment in sufficient quantity to serve all the students. The books used should be neither too difficult nor too simple. It is the practice in some inferior schools to give a new student a book which he can not understand, assign him to a machine, and expect him to work out his own problems.

If after carefully considering whether you have the time, the money, the aptitude, and the desire to study a particular trade, you decide that it will be to your advantage to attend a vocational school, you will certainly want to select the school which will give you the best possible training. First, ask the advice of your principal or your school counselor. Next, ask several employers in the line of work which you hope to enter to give you the names of schools which offer good training for the trade. Then write letters to these institutions asking for information concerning their offerings, requirements, length of course, and tuition. Attempt to find out from the institution how it is rated by examining or accrediting bodies. You may distrust any school which fails to answer your questions concerning standing or is vague in its answers to other specific questions. If possible, talk to

someone who has attended the school. Get some person who is qualified to judge the type of equipment and facilities and the quality of instruction to visit the school with you and to advise you about enrolling. Read carefully and be sure that you understand all enrollment blanks and applications before signing them. Such blanks sometimes turn out to be promissory notes which bind the signer to pay exorbitant tuition fees even though he may later decide not to attend the school.

Apprentice training

Many trades are learned on the job by the apprenticeship method. Plastering, baking, painting, toolmaking and diemaking, dressmaking, plumbing, printing, lithographing, engraving, bricklaying, molding, pattern making, forging, foundry, dry cleaning, meat cutting, and photography are a few examples of trades which may be learned by apprenticeship as well as by attendance at vocational schools.

An apprentice is taken into a place of business as a beginner, is paid wages, and is taught the basic skills of a trade under the constant supervision of master craftsmen. The fact that the apprentice is paid while learning and that he has an opportunity to learn all phases of the trade are definite advantages of this type of training.

A young person who desires to become an apprentice must usually meet certain requirements as to physical fitness, age, mechanical aptitude, and character, depending upon the reg-

ulations set up by the particular company. He must agree to remain with the employer until he has finished his apprenticeship. The employer, on the other hand, must continue to employ him during this time if work is available. The apprentice must also agree to do the outside studying necessary to learn the mathematics, science, blueprint reading, drawing, or other related subjects needed in the vocation. Some companies pay half the cost of tuition and books if the apprentice is required to go to school. In some trades the union determines whether apprentices must attend trade school. In unionized plants the number of apprentices and the length of apprenticeship is also regulated by the local unions. The training period for apprentices is usually from two to four years, depending upon the trade. The average wage paid the beginning apprentice is about one-fourth of that paid skilled workers of the trade in the community. When his training is half finished, he usually earns about half of the regular wage. He continues to receive regular raises until his training is completed.

The U. S. Department of Labor has established five regions throughout the United States for apprenticeship supervision. If you would like to know something about the opportunities for this type of training in your vicinity, write to your regional office of the Department of Labor, using the address given below. Mention the trade in which you are interested; ask for names of firms in your region which have

apprentice training programs; and then write to these firms for detailed information.

Northeastern Region (including Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, and New York). Address: Regional Apprenticeship Supervisor, Room 1402, No. 11 Beacon Street, Boston, Massachusetts.

Central Region (including Ohio, Pennsylvania, New Jersey, Delaware, Maryland, District of Columbia, Virginia, West Virginia, and Kentucky). Address: Regional Apprenticeship Supervisor, 908 Feller Building, Harrisburg, Pennsylvania.

Midwestern Region (including Wisconsin, Minnesota, Michigan, Iowa, Illinois, Missouri, Indiana, Nebraska, South Dakota, and North Dakota). Address: Regional Apprenticeship Supervisor, 1 West Wilson Street, Madison, Wisconsin.

Southern Region (including North Carolina, South Carolina, Tennessee, Mississippi, Alabama, Georgia, Florida, Louisiana, Arkansas, Oklahoma, and Texas). Address: Regional Apprenticeship Supervisor, 206 Brown Building, Austin, Texas.

Western Region (including Colorado, Kansas, New Mexico, Arizona, California, Nevada, Utah, Wyoming, Montana, Idaho, Oregon, and Washington). Address: Regional Apprenticeship Supervisor, 718 State Capitol Annex, Denver, Colorado.

Training for jobs under government regulation

Those who are interested in military life and who want to learn a trade should consider the opportunities offered by the regular Army or Navy. During peace time those who enlist in either of these branches receive superior training in the field of their choice. They are immediately started on a training program in some vocational line such as aviation, mechanics, electricity, or stenography as a part of the

service.

Most airplane pilots are trained in the Army, Navy, or Marine Corps. Information concerning the instruction in pilotage and mechanics provided by the Army and the Navy may be obtained by writing to the Adjutant General of the Army, Washington, D. C. There are now a number of colleges and universities which have air-training programs for students who want to receive flying instruction and to obtain the required number of hours of flying necessary for pilots' licenses. Those who are interested in aviation and who plan to attend college should find out whether or not the colleges of their choice have been designated by the Civil Aeronautics Authority to provide civilian flight training. There are also a number of good private schools which teach flying and aviation mechanics, but training in these schools is quite expensive. For a list of private schools approved by the Government, write to the Civil Aeronautics Authority, Washington, D. C.

Airplane mechanics must hold licenses approved by the Bureau of Air Commerce. To obtain a license, it is necessary to have one year's experience and to pass a government examination. The experience may be obtained by working in a licensed hangar under a licensed mechanic, by working in a factory manufacturing aircraft and engines, or by attending an aviation school which has been approved by the Government. Very few of the schools which offer training in this trade have adequate equipment. A boy who is considering enrollment at a private

school for aviation mechanics should obtain catalogs from a large number of schools and make careful comparisons of the quality of their equipment and the qualifications of their teachers. Air line executives in charge of aircraft maintenance may be willing to give you the names of some good schools from which they have obtained mechanics.

Probably every one is familiar with the fact that a great majority of the employees of the Federal Government are employed under the civil service laws. Now some of the states, a few of the larger county governments, and eighty percent of the larger cities use the results of civil service examinations as the bases for selecting their government workers. The fact that about half the applicants for Federal positions fail to get a passing grade shows that too many try to pass the civil service examinations without adequate preparation. Not only must a person pass the examinations, but his grades must be among the best in order for him to have any chance of appointment to a government position. Information concerning civil service examinations may be secured from your local post office or from the U. S. Civil Service Commission, Washington, D. C.

A large percentage of the municipal civil service jobs are in the police and fire protection departments. The larger cities have their own police training schools which teach state and local laws, use of firearms, boxing and wrestling, body building exercises, first-aid methods, and crime detection. This training, however, is usually given only

after the person has been accepted as a member of the police force. In cities which operate under the civil service regulations, appointment to the police force depends upon ranking in physical and mental tests which measure the applicant's strength, quickness, and general education. Cities and states vary in the standards and the age requirements for this work. Because in most cities policemen must be at least twenty- one years of age, many young men have the time and the opportunity to go to college from two to four years before going into police work.

Firemen obtain most of their training on the job, after being selected on the basis of competetive examinations. Most states now have special courses for firemen in which they learn about first aid, rescue methods, the chemistry of combustion, pumps and water pressure, and chemical extinguishers. Special classes in fire fighting may be held locally, in regional schools attended by firemen from a number of communities, or in state universities.

Trade school courses

There are dozens of trades which can be learned in the various kinds of trade schools mentioned at the beginning of this chapter. For names and addresses of the public schools in which each trade is taught, write to the U. S. Office of Education, Federal Security Agency, Washington, D. C., for a copy of the Directory of Federally Aided All-Day Trade and Industrial

Education Programs, published in 1940. Also obtain from the U. S. Office of Education, Washington, D. C., a copy of the bulletin, Private Proprietary and Endowed Schools Giving Trade and Industrial Courses, by Maris M. Proffitt (price, 10¢). A look at these bulletins will convince you that the courses of training offered by trade schools are so numerous that only a few of the most popular ones can be described here.

In all large cities there are business schools where courses in bookkeeping, stenographic work and secretarial work are given. Many students who have had the advantage of high school training in a well organized commercial department do not need additional training before securing office positions. But those who expect to take a part or all of their commercial training in a private school should thoroughly investigate the school before enrolling. Some private commercial schools give exceptionally good training, while others are little more than rackets for getting the students' money.

Private business schools also give courses in the operation of bookkeeping, posting, adding, calculating and billing machines; mimeograph, ditto, and multigraph duplicators; addressographs, punched card machines, sorting machines, and other office machines. Because of the cost of the equipment, small high schools do not usually offer this training. Operators are sometimes trained on the job, especially for the use of the less complicated machines. Many manufacturers of

office machines have schools for training operators. When a machine is sold the company sends a trained student into a position as operator. Some companies offer this training free; others charge a small fee. The length of the training period varies with the kinds of machines, but it is usually not more than three months of full time instruction. If taken in evening classes, the course usually requires somewhat longer.

Instruction in banking may be had in the business administration departments of universities or in private schools. Young people who hope to enter the field and who do not have the opportunity to take courses in banking will be interested in knowing that they may study while on the job. The American Institute of Banking, 22 E. Fortieth Street, New York City, trains bank employees so that they may be prepared for advancement. Classes taught by bankers and professors are conducted in a large number of cities. For those who cannot attend classes in the training centers, correspondence courses in banking subjects are provided. Some banks pay all or part of the tuition costs for employees who take the courses.

Beauty culture is a trade which may be learned either by apprenticeship or by schooling. Since most states require cosmetologists to be licensed before they can practice, it is usually necessary to take a training course in order to pass the oral and written examinations and the tests in practical

work given by the State Board of Examiners. A grade of about 80 percent on examinations is required before a permanent license is granted. Courses in cosmetology are taught in some public schools. In private schools, courses usually range in length from twelve weeks to one year. Costs vary in different institutions but they generally range from $50 to $350 for the course. Students must be sixteen or eighteen years of age or over and must have had a preliminary education of from the eighth to the twelfth grade, depending upon state laws. A school of beauty culture should be selected with great care. While many schools have high standards, some give their students poor training and exploit them as a source of free labor in shops run by the school. For lists of accredited schools and for details concerning the examinations, write to the State Board of Cosmetology in your state capital.

Most large cities also have barber schools. In practically all states it is necessary to have a license in order to practice barbering, although the requirements for licensing vary in different states. Generally the applicant must be at least sixteen or eighteen years of age, must have completed at least a six months' course in a recognized barber school, and must have passed the examination given by the state board of examiners. In some states an apprenticeship period must also be served before a person is eligible to take the examination. The average cost of tuition at a barber school is about one

hundred dollars.

Dental hygientists, who are employed by hospitals, clinics and public schools, and who assist dentists by cleaning teeth and working in the laboratory, must take a one- or two-year course at an accredited school after completing high school. Schools which offer this training are found in the larger cities.

Most dental mechanics, or dental technicians, who make artificial teeth, bridges, crowns and inlays, receive their training on the job because dentists often prefer to do their own training. However, there are a number of private schools which offer training for this trade. Some are reliable institutions; others are not. Before enrolling in a private school, a student should consult dentists and dental mechanics in his locality and communicate with his state department of education and state board of dental examiners.

Optical mechanics can learn their trade either by becoming apprentices in a wholesale shop or by taking a course of study offered in a special school. Apprentices are usually taught only one phase of the work, such as grinding lenses, cutting, edging, or inserting lenses in frames. The following private schools give training for this trade:

Edward Bok Vocational School, 8th and Mifflin Streets, Philadelphia, Pennsylvania

The American Institute, 1624 West Flagler Street, Miami, Florida

School of Mechanical Optics, Inc., Montague and Henry Streets, Brooklyn, New York

Illinois College of Mechanical Optics, 30 North Dearborn Street, Chicago, Illinois

Aside from the regular college courses given in home economics, there are public and private schools which offer courses of from one to four years in dietetics, food economics, and homemaking. In some cities there are free public schools and vocational high schools which give training in cooking, and in cafeteria, lunchroom and tearoom management. Although most commercial cooks learn a large part of their work on the job, there are a few trade schools at which they may be trained.

Baking is another trade which is usually learned on the job. The length of apprenticeship necessary depends upon the kind of bakery and the aptitude of the apprentice. Ordinarily two or three years are needed to learn general bread, roll and simple pastry baking. An additional year is required for learning cake making and decorating. There are a few vocational schools in which courses in baking are taught. Among them are the Wm. Hood Dunwoody Industrial Institute, Minneapolis, Minnesota; The Milwaukee Vocational School, Milwaukee, Wisconsin; the American Institute of Baking, Chicago, Illinois; and the Wiggins Trade School, Los Angeles, California.

Telephony is still another field in which workers are trained on the job. Applicants are first accepted according to physical fitness and mental aptitude and are then given initial

training by the telephone company. The length of the training period depends upon the type of position and the aptitude of the employee, but it is at least four weeks. This is true both of the switchboard operators and of the workers who are responsible for the construction and maintenance of the outside equipment and the installation and repair of private branch exchanges and private telephones.

Laundry work is usually learned in the plant, although there are a few schools which teach this trade. Training for executive work as superintendents or managers of laundries is offered in the vocational training school founded and maintained by the American Institute of Laundering, Joliet, Illinois. This training includes courses in textiles, washing practices, accounting, office administration, and laundry sales, service and advertising. Prospective students must have a high school education, must be at least twenty years of age, must have had a minimum of one year of practical laundry experience, and must be sponsored by a member of the Institute. A two-year cooperative course in power laundry technique for foremen and executives is offered by the Ohio Mechanical Institute in Cincinnati, Ohio. The students attend school for four weeks and then work in a laundry for the alternating four weeks.

Courses in salesmanship are given in many high schools and trade schools. Salesmen are also trained on the

job for work in specialized fields. For example, most insurance companies put future salesmen through a course of training lasting from three weeks to three months. Usually their salesmen receive no pay while they are being trained. The Insurance Institute of America, Inc., 80 John Street, New York, offers a twenty-weeks correspondence course, conducts study groups in some cities, and furnishes reading courses for those who wish to study insurance salesmanship on their own. Some universities and Y.M.C.A. schools in the larger cities offer courses in insurance. Those who can meet the educational requirements and can attain a certain standard by passing a series of examinations may receive the professional title of C.L.U. (Chartered Life Underwriter) from the American College of Life Underwriters, Northeast corner 36th and Walnut Streets, Philadelphia, Pennsylvania.

Vocational training in college

There are some vocations for which the training may be secured either through university courses or through other types of specialized training. Nursing is one of them. A person who aspires to become a graduate registered nurse must attend an approved school of nursing. Some of these schools are connected with universities, thus making it possible to obtain both a nurse's diploma and a regular college degree. Some schools connected with colleges and universities accept only applicants who have first completed a certain amount of general

college work. In this way, the entire course may be four or five years in length. Most schools of nursing, however, are owned and operated by large city hospitals.

Entrance requirements for schools of nursing vary, although the requirements are generally more strict in the better schools. Usually high school graduation is demanded and minimum and maximum age limits are set. All schools require thorough physical examinations. Some of them also give intelligence and aptitude tests. Nursing schools generally charge from $75 to $120 for the complete course of training. Maintenance, including uniforms and books, is usually furnished during the training period.

The degree of R.N. (registered nurse) is earned after successful completion of three years of work in a school of nursing and the passing of a state examination. The State Board of Nurse Examiners lists the schools in each state which meet the requirements set by law. If you consider attending a school of nursing, write to your State Board or consult local nurses and doctors before making a choice. Also write for information to the Nursing Information Service, National Organization for Public Health Nursing, 50 West Fiftieth Street, New York City.

Schools giving training in laboratory technology vary widely in their entrance requirements and in the length of their period of training. Some of them require only high school

graduation, while others require four years of college training for admission. However, most clinical laboratory technicians have had from two to four years of college work before beginning their vocational training. The length of the training period varies from one to four years. High school graduates sometimes receive simple training in this field in hospitals, in private laboratories of pathologists, or as office assistants to doctors. By far the most desirable way in which to prepare for the work is to attend a college or university which gives a course in clinical laboratory work and then to serve an apprenticeship of six months to a year in a laboratory. Although there are approximately two hundred schools which give training in laboratory technology, only about one hundred twenty-five of them have been approved by the American Society of Clinical Pathologists. A list of the approved schools may be obtained by writing to the registrar of the Society, 234 Metropolitan Building, Denver, Colorado.

There are hundreds of art schools in the United States. Some of them are conducted as departments of colleges and universities; others are privately owned vocational schools operated as businesses. In addition to painting and sculpture, there are offered various courses such as advertising art and design, book and magazine illustration, cartooning, fashion design, interior decoration, sign painting, silk screen process, window display, and industrial design which includes the de-

signing of textiles, rugs, carpets, wallpaper, automobiles, furniture, household goods, packages and containers, tools, jewelry, furs, shoes, toys, and many other kinds of merchandise. One should select an art school which is well established and which has outstanding instructors. Beware of the school which gives its students a great deal of copying and very little creative and original work to do. Lists of schools of art together with tuition costs, entrance requirements, and other information may be found in the American Art Annual, published by the American Federation of Arts, Washington, D. C. This annual is available in the larger public libraries.

Some students of music obtain their training from private teachers; some study at conservatories or schools of music connected with colleges or universities; and others attend the innumerable private music schools throughout the country. The tuition in some schools of music is quite high. The Curtis Institute of Music, Philadelphia, Pennsylvania, provides all tuition free and students are accepted on the basis of scholarship. The Eastman School of Music, University of Rochester, Rochester, New York, and the Julliard Graduate School, New York City, grant many scholarships which cover most or all tuition fees. To be sure, the admission requirements are rather strict.

Some of the private institutions are excellent;

others are not so good. To check on the quality of the various schools, write to the National Association of Schools of Music, 2209 Auburn Avenue, Chicago, which was founded for the purpose of improving music school standards.

There are many private schools which offer instruction in dramatic arts. Schools of this type should be carefully investigated before enrollment. Many of the best actors have received their training in college. Among the universities which have dramatic arts departments are Cornell University, State University of Iowa, Northwestern University, University of Southern California, University of Wisconsin, and Yale University.

Many types of schools have not been mentioned in this chapter. The ones described here are merely intended to show you how varied are the opportunites for training in different fields of work. Too often boys and girls drift along aimlessly through high school feeling that there will be plenty of time after graduation to think about employment. But it is becoming more and more difficult to enter any worthwhile vocation without first acquiring some specific training. Even though you may not have decided upon your lifework, it is a good plan to investigate the educational requirements in many fields so that you will not be entirely ignorant of the preparation necessary to enter various occupations. The education and training which you receive after high school will be expensive

and difficult, and any high school courses which you can take as a background and any plans which you can make in advance will be helpful.

STUDENT ACTIVITIES:

I. Consult the classified section of your telephone directory for names and addresses of trade schools in your city. The class secretary or appointed members of the class may then secure bulletins and other literature from each of the schools. Reports may be given on the schools in which any members of the class are interested. Such information as entrance requirements, cost of tuition, length of courses, whether day or evening classes are offered, academic subject matter and practical work included in the courses should be discussed.

II. If there are no trade or vocational schools in your town, write to the superintendent of schools in the nearest large city, asking for information concerning the vocational training offered there. Or write to your State Director of Vocational Education and inquire about the schools in your state which offer training in the trades which are of interest to members of the class.

III. Find out the names of local industries or of industries in nearby cities which operate training schools for their own employees. By letters or personal interviews with the officials, try to learn what qualifications these companies require of their prospective employees, what wages they pay during the training period, and just what the training includes. It may be possible to secure application blanks for these training programs so that the students can see what industry demands of its employees.

IV. Make a list of the vocational schools (other than those which train for the building, manufacturing, and mechanical trades) in your community or within reasonable traveling distance and give the kinds of training offered at each.

V. Scan the advertisements in newspapers and magazines for extravagant claims as to the value of instruction and the possibilities of employment made by some private trade schools.

VI. Various members of the class may volunteer to interview nurses, barbers, beauty operators, office machine operators, stenographers, laboratory technicians, optical mechanics, artists, musicians, airplane pilots, and workers in other vocations. These persons should be asked to name good schools for preparing for their particular work

and to offer suggestions to those who are interested in the field.

VII. List vocations which can be studied either through university training or by attending a private vocational school. Discuss the advantages and disadvantages of each method of preparation.

VIII. A representative of the class may be sent to the public library to examine the American Educational Directory, by Homer L. Patterson, American Educational Company, Chicago, 1943, for lists of special schools, trade schools, manual and industrial training schools, and business schools, and for the names of any public school officials which may be needed in writing for information concerning these schools.

NOTES TO THE TEACHER:

I. As a means of illustrating the part-time training which is given by some companies to their employees, you may want to obtain the following bulletins and show them to the class:

1. An Internship in Business, Supervisor Business Training, General Electric Co., Schenectady, New York

2. Chrysler Institute of Engineering, (Undergraduate School and Graduate School), Chrysler Corporation, Detroit, Michigan

3. Henry Ford Trade School, English Dept., Henry Ford Trade School, Dearborn, Michigan

4. Westinghouse Educational Program, Westinghouse Electric and Manufacturing Company, East Pittsburg, Pennsylvania

II. It will be helpful to have on hand copies of the following government pamphlets for use in finding names, addresses and other information concerning various trade and technical schools:

1. Consulting Committee on Vocational-Technical Training appointed by the U. S. Commissioner of

Education, Vocational-Technical Training for Industrial Occupations, Federal Security Agency, U. S. Office of Education, Washington, D. C., 1944, pp. 137-254 (Price 40¢)

2. Hawkins, L. S., Directory of Federally Aided All-Day Trade and Industrial Courses, U. S. Office of Education, Washington, D. C., 1940.

3. Proffitt, Maris M., Private Proprietary and Endowed Schools Giving Trade and Industrial Courses, U. S. Office of Education, Washington, D. C., 1935 (Price, 10¢)

III. This lesson lends itself to individual counseling. If you know your students well, you can help them a great deal by suggesting suitable trades and vocational opportunities for each one to investigate. Encourage them to study the future of the trade, to learn whether it is expanding or declining, and to find out the opportunities of apprentice training. Interest the students in obtaining information from the interviewer of the United States Employment Service, the director of vocational education in your town, the head of the local vocational school, foremen and supervisors in various trades and labor union officials.

BIBLIOGRAPHY

*Bell, Howard M., Matching Youth and Jobs, American Council on Education, Washington, D. C., 1940, Chap. 8.

Bennett, Margaret E., and Hand, Harold C., Beyond High School, McGraw-Hill Book Company, New York, 1938, Chap. 4.

Davey, Mildred A., Smith, Elizabeth M., and Myers, Theodore R., Everyday Occupations, D. C. Heath and Company, Boston, 1941.

Maule, Frances, Men Wanted, Funk and Wagnalls, New York, 1938, Chap. 4.

Smith, Charles M., After High School--What?, Burstein and Chappe, New York, 1940 (Price 50¢).

Yates, Raymond F., Young Men and Machines, Dodd, Mead and Company, New York, 1944, Chap. 10.

*For the teacher